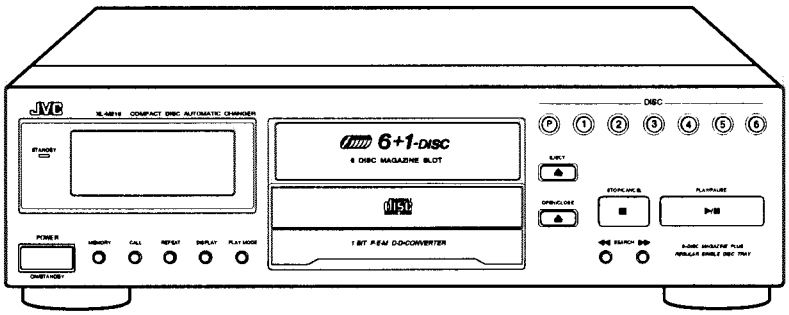
JVC

SERVICE MANUAL

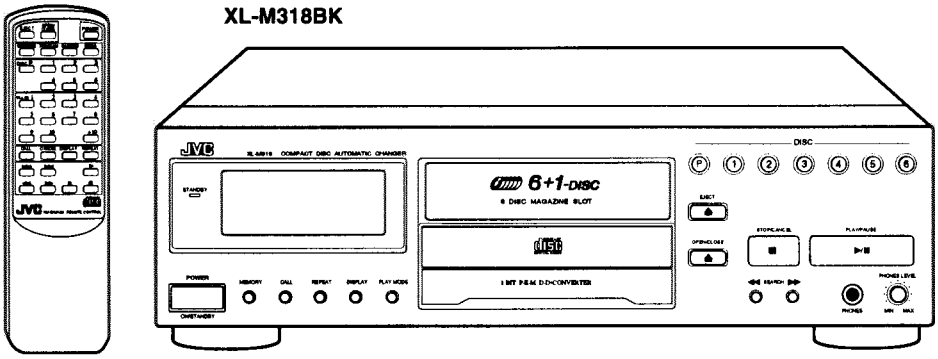
COMPACT DISC AUTOMATIC CHANGER

XL-M218BK
XL-M318BK

XL-M218BK



XL-M318BK



COMPACT disc DIGITAL AUDIO

COMPU LINK Component

COMPACT disc DIGITAL AUDIO

COMPU LINK Remote Control Component

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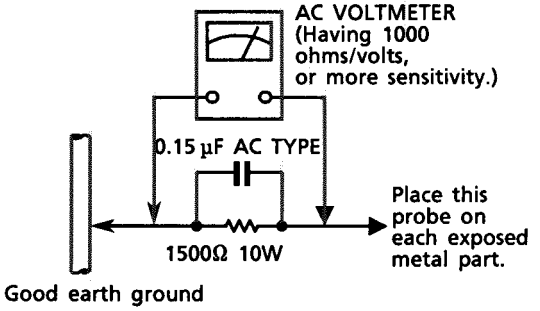
No. 20563
Feb. 1996

Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute repalcement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10 W resistor paralleled by a 0.15 µF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor.
     Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Important for Laser Products

1. CLASS 1 LASER PRODUCT
2. DANGER : Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. CAUTION : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.
4. CAUTION : The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.
5. CAUTION : If safety switches malfunction, the laser is able to function.
6. CAUTION : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

VARNING : Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

ADVARSEL : Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

ADVARSEL : Usynlig laserstråling ved åpning, når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL

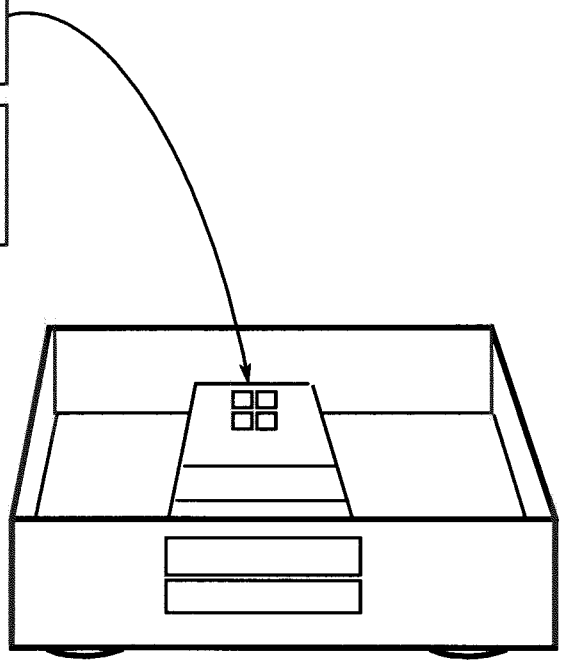
(Except for the U. S. A.)

DANGER: invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)

VARNING: Osynling laserstråling när denna del å öppnad och spärren är urkoppled. Betrakta ej stålen. (s)

ADVARSEL: Usynling laserstråling ved åbning, når sikkerhedsafbrydere er ude at funktion. Undgåudsættelse for stråling. (d)

VARO: Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)



We would like to thank you for purchasing one of our JVC products.
Before connecting this unit to the wall outlet, please read the instructions carefully to ensure that you obtain the best possible performance.
If you have any questions, please consult your JVC dealer.

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INTRODUCTION

Precautions

Load only compact discs
Do not load anything except a compact disc into the disc magazine or disc tray.

If a problem persists
If something goes wrong, turn off the power immediately. If the problem remains when you turn the power back on, turn off the power again and consult your JVC dealer.

Handling the power cord
When unplugging the power cord from a wall socket, pull from the plug body. Never pull on the power cord.

Volume settings
A CD player has almost no background noise. Therefore, the technique of setting the volume before the music starts by listening to the background level, as used with analog turntables and tape decks, cannot be used and may result in speaker damage if you set the volume too high.

Condensation
If a CD player is moved from a cold to a warm location or is used in a room subject to excessive humidity, or where a fire has just been lit, condensation could form on the optical components used in the unit. This may prevent the laser beam from transmitting properly and cause noise or even malfunction.
If condensation forms and prevents the CD player from functioning properly, leaving the player turned on for an hour or two should remove the condensation. If the CD player does not function properly at the end of this time, please consult your JVC dealer.

Transporting the unit
When carrying this unit, it is best to avoid tilting it or turning it upside-down. If you have to tilt the unit, be sure to remove the disc first.

Using compact discs
Compact discs are made of plastic and can be damaged easily. If the disc is dirty, scratched, warped or otherwise damaged, the digital information may not be picked up correctly.

Applicable discs
This unit can only be used with compact discs bearing the mark below. Never use other types of discs.

COMPACT disc DIGITAL AUDIO

About this manual

This manual contains operating instructions for the XL-M318BK and XL-M218BK compact disc automatic changer. The difference between the XL-M318BK and the XL-M218BK is that the XL-M318BK is supplied with a remote control and headphones jack (with volume control) and the XL-M218BK is not. The XL-M318BK is used for illustration purposes.

This manual is organized as follows:

The first part, "INTRODUCTION", gives you the precautions for using this unit, and shows you the names of the buttons on the main unit and remote control.

The second part, "BEFORE USING FOR THE FIRST TIME", shows you what to do before playing a disc. It shows you where to place the unit for best results, how to install batteries in the remote control, and how to connect this unit to an amplifier/receiver and other components.

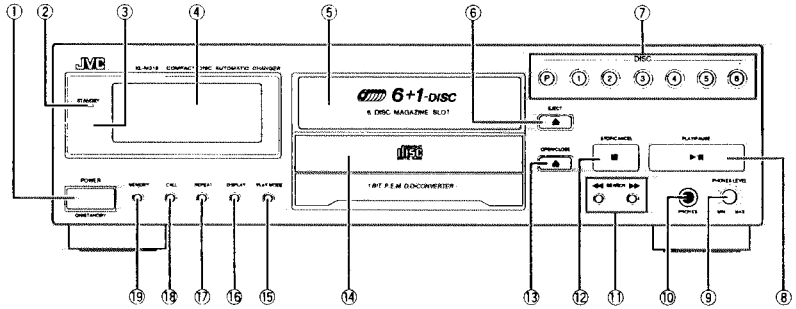
The third part, "BASIC OPERATION", describes how to load the disc magazine and disc tray, as well as basic functions for playing discs.

The fourth part, "VARIOUS PLAYBACK PATTERNS", describes the various playback, recording, and program functions.

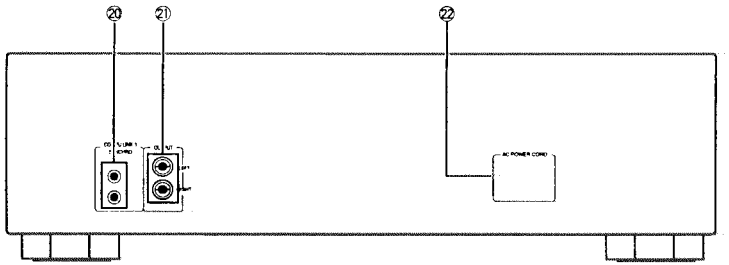
The last part, "GENERAL INFORMATION", describes the COMPU LINK remote control system, which facilitates various operations between JVC components, and explains how to take care of your discs.
It also shows you how to check the unit if a malfunction occurs, and gives you the technical information regarding this unit.

Names of buttons

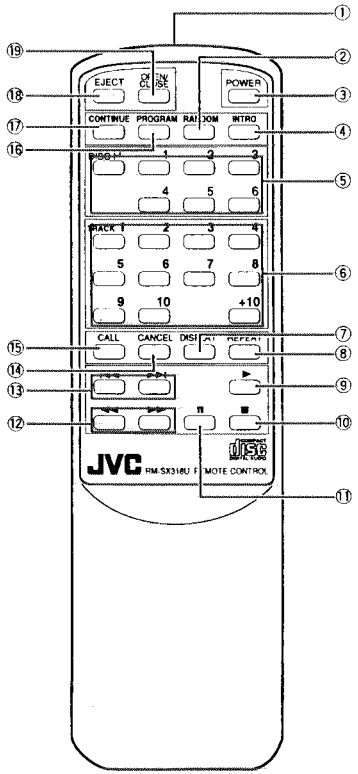
Main unit



① **POWER ON/STANDBY:** Turns the power ON/STANDBY.
② **STANDBY:** Standby indicator.
③ Remote sensor (XL-M318BK only).
④ Display window.
⑤ Magazine slot.
⑥ ▲ **EJECT:** Ejects the magazine.
⑦ **DISC:** Selects disc numbers.
⑧ ► **PLAY/II PAUSE:** Starts or pauses playback.
⑨ **PHONES LEVEL:** Phones level knob (XL-M318BK only).
⑩ **PHONES:** Phones jack (XL-M318BK only).
⑪ I◄◄ **SEARCH** ►►I: Skips to the next or previous track or scans fast forward or backward.
⑫ ■ **STOP/CANCEL:** Stops playback and cancels program steps.
⑬ ▲ **OPEN/CLOSE** : Opens and closes the single disc tray.
⑭ Single disc tray.
⑮ **PLAY MODE:** Selects playback mode.
⑯ **DISPLAY:** Switches the time display.
⑰ **REPEAT:** Selects the repeat mode.
⑱ **CALL:** Reviews program steps in program mode.
⑲ **MEMORY:** Memory button.
⑳ **COMPU LINK-3 SYNCHRO:** COMPU LINK-3 synchro jacks.
㉑ **OUTPUT:** Output jacks.
㉒ **AC POWER CORD:** AC power cord jack.



Remote control unit (XL-M318BK only)



The following numbers correspond to the buttons on the remote control.

① Remote control signal transmitter.
② **RANDOM:** Selects the random mode.
③ **POWER:** Turns the power ON/STANDBY.
④ **INTRO:** Selects the intro scan mode.
⑤ **DISC:** Selects disc numbers.
⑥ **TRACK:** Selects track numbers.
⑦ **DISPLAY:** Switches the time display.
⑧ **REPEAT:** Selects the repeat mode.
⑨ ►: Starts playback.
⑩ ■: Stops playback.
⑪ II: Pauses playback.
⑫ ◄◄/►►: Scans fast forward or backward.
⑬ I◄◄/►►I: Skips to the next or previous track.
⑭ **CANCEL:** Cancels program steps.
⑮ **CALL:** Reviews program steps in program mode.
⑯ **PROGRAM:** Selects program mode.
⑰ **CONTINUE:** Selects continue mode.
⑱ **EJECT:** Ejects the magazine.
⑲ **OPEN/CLOSE:** Opens and closes the single disc tray.

Installing the unit

Before you install the unit
Be sure all of the following accessories were included with your unit.

Remote control unit (RM-SX318U): 1 (XL-M318BK only)

Batteries: 2 (XL-M318BK only)
[R6P(SUM-3)/AA(15F) type]
For the remote control unit.

Audio cord: 1
To make connections to other audio components.

AC power cord: 1
For connecting the unit to a wall outlet in your home.

COMPU LINK cord: 1
To make connections to use other JVC COMPU LINK components.

Magazine (XC-M75): 1

Magazine Label: 1
Use these labels to organize your disc collection into magazines.

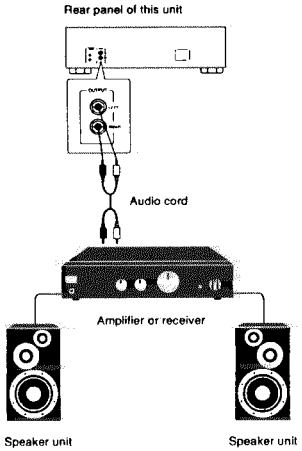
Best location
Select a location which is level, dry and neither too cold nor too hot (temperature range 5°C (41°F) to 35°C (95°F)). Also, avoid dusty locations or any location subject to vibration.

If interference occurs
Interference may occur, if this unit is placed near a tuner or a radio receiver tuned to an AM frequency. If this happens, we recommend that you either move the unit farther away from the tuner or radio receiver, or temporarily turn off the power to this unit.

Connecting to other equipment

Connecting this unit to an amplifier or receiver lets you listen to CDs through speakers.
Connect the analog OUTPUT jacks on the rear of this unit to the CD or AUX input jacks on an amplifier or receiver with the supplied audio cord.

Notes
- *Never connect the this unit's OUTPUT jacks to an amplifier or receiver's PHONO jacks. It may damage the components.*
- *Make sure the same channels are connected between this unit and the amplifier or receiver: LEFT to LEFT and RIGHT to RIGHT.*
- *Do not connect the power plug until all other connections are complete.*
- *Connect the plugs firmly. Loose connections may cause noise or malfunction.*

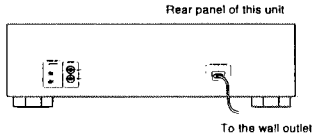


Supplying the power

Connecting the AC power cord

Connect the AC power cord to a wall outlet after completing all other connections.

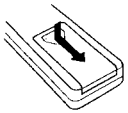
Note
Do not connect this unit's power cord to the SWITCHED AC OUTLET on an amplifier or receiver when using the COMPU LINK Remote Control System.



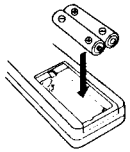
Installing the batteries in the remote control (XL-M318BK only)

Before operating the remote control, install two batteries.

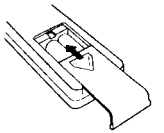
1. **Remove the battery cover on the back of the remote by simultaneously pressing down and pulling it backwards.**



2. **Install the batteries. Be sure to install with the correct polarity, (+) and (–).**



3. **Slide the cover back into position.**



Battery replacement
Battery service life varies depending on the conditions of use but standard life is about one year. When batteries become weak, the remote control's operating distance decreases. If this happens, replace the batteries with new ones. Use two (2) dry cell batteries of the R6P (SUM-3)/AA(15F) type.

Notes
Incorrect battery usage can cause corrosion and damage the remote. To prevent damage to the remote and extend battery life:
- *Install batteries observing the correct polarity, (+) and (–).*
- *Do not use a combination of old and new batteries.*
- *Be sure to use the correct batteries (batteries with similar shapes may have different voltage ratings).*
- *Remove the batteries from the remote if it is not going to be used for a long time.*
- *Do not expose batteries to heat or flame.*
- *Extremely low temperatures may shorten battery life.*

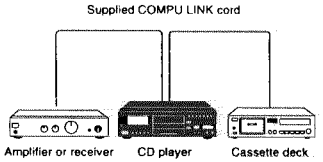
COMPU LINK connections

Connecting JVC audio components with the COMPU LINK jacks provides automatic control of relative operations between components and facilitates various operations. With a COMPU LINK connection to an amplifier or receiver, you can operate this unit with the amplifier or receiver's remote control. Connecting to a tape deck lets you conduct synchronized recording.

Connecting the COMPU LINK cord

The COMPU LINK-3 SYNCHRO jacks are used to output and input the control signals for the COMPU LINK remote control system.
COMPU LINK-compatible products are provided with the jacks marked COMPU LINK-1, COMPU LINK-2 or COMPU LINK-3, depending on the COMPU LINK version. This unit is equipped with COMPU LINK-3. You can connect this unit to components with previous versions of COMPU LINK, but only the previous versions features will be available.
Plug the supplied COMPU LINK cord into the COMPU LINK-3 SYNCHRO jack on the rear of this unit. Plug the other end into the COMPU LINK jack of an amplifier of receiver. If the amplifier or receiver has two COMPU LINK jacks, you can use either one.

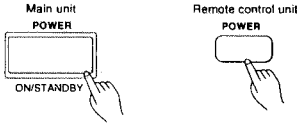
COMPU LINK system components connected with COMPU LINK



Preliminary operations

Turning on the power

Press the POWER button.



Press again to turn the unit off and activate standby mode.

The power turns on automatically when you;
- Insert a magazine.
- Press the ►/II PLAY/PAUSE button on the main unit or the ► button on the remote.

Note
This unit consumes approximately 5 watts of power in standby mode. To turn the power completely off, disconnect the power cord from the wall outlet.

Remote control operation (XL-M318BK only)

Point the remote control towards the REMOTE SENSOR on the front of the main unit and operate steadily and carefully. The remote control unit can be used within a range of about 7 meters (23 feet) from the REMOTE SENSOR, and at angles of up to about 30 degrees.

Adjusting the headphones level (XL-M318BK only)

After connecting a pair of headphones to the PHONES jack, turn PHONES LEVEL knob to adjust volume level of the headphones.

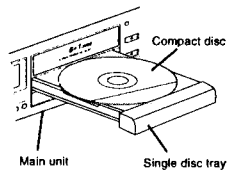
Loading the single disc tray

Use the ≜ OPEN/CLOSE button.

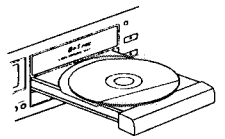
1. **Press the ≜ OPEN/CLOSE button to open the single disc tray.**
2. **Place a disc flat in the grooved depression on the single disc tray with its label side facing up.**
3. **Press the ≜ OPEN/CLOSE button to close the single disc tray.**

Note
When loading a disc on to the single disc tray, be sure to place the disc so that it lies flat in the grooved depression. Otherwise, the disc may be damaged or stuck in the unit when the tray is closed.

Good



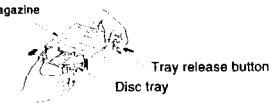
No Good



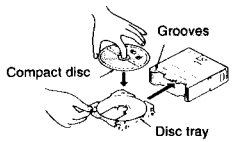
Loading the magazine

Use the magazine when you want to play 2 or more discs.

1. Slide the disc tray out of the magazine while pressing the tray release button.

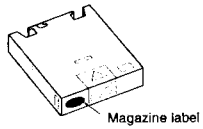


2. Place a disc on the disc tray with its label side facing up.
It's not possible to play discs inserted upside-down. Also, never place discs directly into the magazine without using a disc tray.



3. Line up the disc tray with the grooves in the magazine and push the tray back in. (The discs are numbered from 1 to 6 starting from the bottom disc.)
It's unnecessary to press the tray release button when inserting the disc trays.

Magazine Labels
Stick one of the provided magazine labels (A~Z, 1~6) onto the front of each magazine. This makes it easy to identify which magazine is currently being used when you have several magazines.



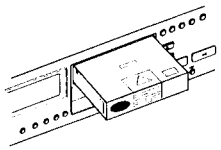
Notes
Be careful of the following when handling the disc trays.
- Never bend the disc tray or force it into the magazine. A skewed disc tray may cause a malfunction.

- Hold the magazine horizontally when inserting or removing the disc trays.
- The openings on the disc trays are for passage of the laser signal. These openings leave part of the shiny surface on the bottom of the disc exposed, please be careful not to touch this surface.

Optional magazines
If you wish to use 8cm (3 inch) CDs, please obtain the special magazine (XC-M73) designed for these discs.
If you wish to use additional 12cm (5 inch) disc magazines, please obtain the special magazine (XC-M75) designed for this unit.

Inserting the magazine

Insert the loaded magazine into the magazine slot and push lightly until it clicks into place.



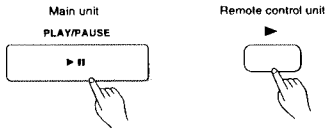
To remove the magazine, press the ≜ EJECT button.

Note
The player may be damaged if the magazine is pushed in with too much force.

Basic functions for disc playback

Playing a disc

Press the ►/II PLAY/PAUSE button on the main unit or the ► button on the remote.

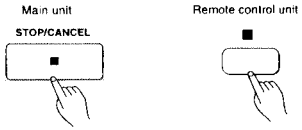


The ► indicator lights in the display and playback starts.
If there are no discs loaded in the unit, the disc tray opens.

To stop playback temporarily, press the ►/II button on the main unit or the II button on the remote.
The II indicator lights in the display and playback stops temporarily.
To resume playback, press the ►/II button on the main unit or the ► button on the remote.

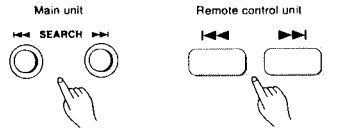
Stopping playback

Press the ■ STOP/CANCEL button on the main unit or the ■ button on the remote.



Skipping to a desired track

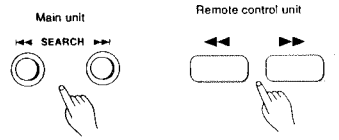
Use the I◄◄ or ►►I SEARCH buttons on the main unit or the ◄◄ or ►► buttons on the remote during playback.



To skip to the beginning of the current track being, tap I◄◄. To skip to the beginning of previous tracks, tap I◄◄ again.
To skip to the beginning of following tracks, tap ►►I.
Tap the button for the direction you want to advance repeatedly until the track you desire appears in the display.

Searching for a desired section

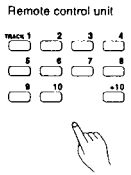
Hold down the I◄◄ or ►►I SEARCH buttons on the main unit or the ◄◄ or ►► button on the remote during playback.



Playback advances or reverses rapidly.
The I◄◄ or ◄◄ button puts playback into rapid reverse and the ►►I or ►► button puts playback into rapid advance. Release the button when you reach the section you desire, and the player returns to normal playback.

Specifying a desired track (XL-M318BK only)

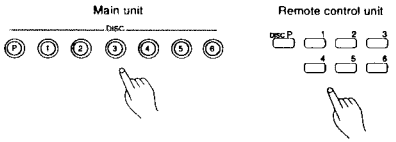
Use the TRACK number buttons (1-10, +10) on the remote control.



The unit searches for the selected track and playback starts automatically.
When selecting track numbers 1 through 10, press the corresponding number button. When selecting a track number greater than 10, use the [+10] button.
Example: To select track number 12, press [+10] and then [2].
To select track number 25, press [+10] twice and then [5].
To select track number 30, press [+10] twice and then [10].

Specifying a desired disc

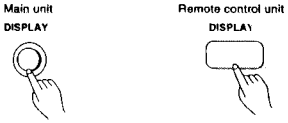
Use the DISC buttons.



To start playback from the beginning of a specific disc, press the DISC button that corresponds to the disc you want to play.

Changing the time display

Use the DISPLAY button on the main unit during playback.

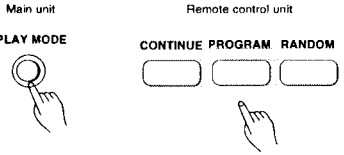


Each time you press the DISPLAY button during playback, the following indicators light to show the display mode:

EACH (displays the elapsed time on the current track)
↓
EACH REMAIN (displays the time remaining on the current track)
↓
TOTAL (displays the total playing time on the disc being played back)

Changing the playback mode

Use the PLAY MODE button on the main unit or press the CONTINUE, PROGRAM, or RANDOM button on the remote control. The playback mode can only be changed when the player is in stop mode.



Each time you press the PLAY MODE button on the main unit, the indicator changes in the following order:

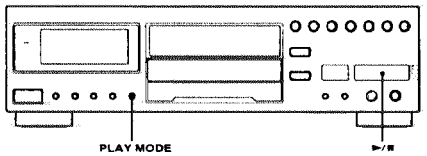
CONTINUE (to playback tracks in continuous order)
↓
PROGRAM (to playback tracks in a programmed order)
↓
RANDOM (to plaback tracks in a random order)

Note
The unit remembers the last playback mode when in standby mode.

VARIOUS PLAYBACK PATTERNS

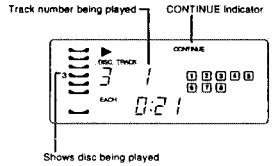
Playing tracks in continuous order

With the continue function, you can start playback from any track on any disc and play continuously through to the final track on disc number 6. When discs are inserted in both the single disc tray and the magazine, playback starts from the disc in the single disc tray.



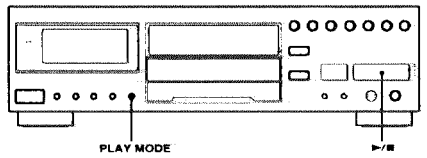
In stop mode, press the PLAY MODE button to light the CONTINUE indicator. Then press the ►/II PLAY/PAUSE button.

Playback starts from the first disc in the magazine (if a disc is not loaded in the single disc tray) or the disc loaded in the single disc tray. If the single disc tray is left open, pressing the ►/II button closes the tray before starting playback.
The following display appears.

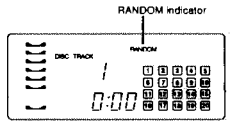


Playing tracks in a random order

With the random playback function, the unit plays tracks at random from among all the discs loaded in the unit. Each track is played only once.



1. In stop mode, press the PLAY MODE button to light the RANDOM indicator.



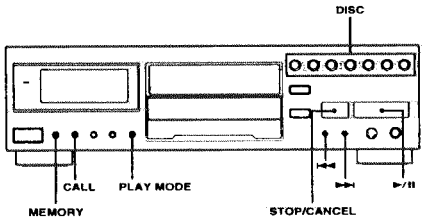
2. Press the ►/II PLAY/PAUSE button to start playback.

- To skip to the next track to be played, tap ►►I.
- To play all tracks repeatedly in random order, press the REPEAT button so that the REPEAT indicator lights in the display .

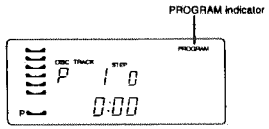
To exit random playback
In stop mode, press the PLAY MODE button to select another playback mode. The RANDOM indicator goes out and the unit enters the selected play mode.

Playing tracks in a desired order

With the program function, you can play tracks from discs in the magazine and single disc tray in the order you desire.



1. In stop mode, press the PLAY MODE button or the PROGRAM button on the remote to light the PROGRAM indicator.

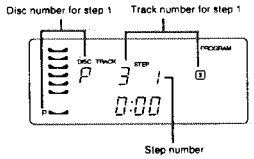


2. Use the DISC buttons on the main unit or remote to select the disc containing the track you want to program.
"AL" (all tracks) appears in the display.

To program the entire disc
Skip step 3 and 4 below. All tracks on the selected disc are programmed if the track number is not specified.

3. Use the I◄◄ and ►►I buttons to display the track number you desire.

4. Press the MEMORY button to store the selected track number in the program memory.
The selected track number is programmed and the following display appears.



- You can select the desired track number with the TRACK buttons on the remote control unit. Press the TRACK buttons on the remote control. It is not necessary to press the MEMORY button after selecting the track number.
- If you want to cancel the step being displayed, press the ■ STOP/CANCEL button (or the CANCEL button on the remote) and enter a new track number.

5. Repeat steps 2, 3, and 4 to program additional tracks or discs.
You can program up to 32 steps.

6. Press the ► button to start playback.
The programmed tracks playback in the programmed order.

- You can skip to another program step during playback by pressing the I◄◄ or ►►I buttons.

To check the program contents
Press the CALL button repeatedly. The program steps are displayed in the programmed order.

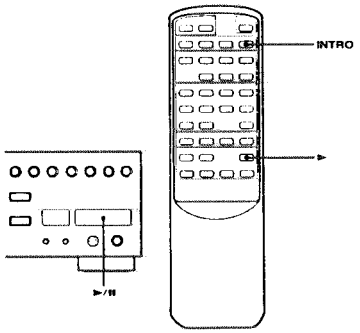
To modify the program contents
Press the CALL button until the display shows the program step you want to change. Then enter a new disc and/or track number (as shown in steps 2, 3, and 4) while the program step is blinking.
To delete a program step, press the CALL button until the display shows the program step you want to delete and press the ■ STOP/CANCEL button while the program step is blinking. You can also delete a displayed program step while programming.
- When the unit is playing back a program, press the ■ STOP/CANCEL button to enter stop mode before deleting the program step.

To exit program mode
In stop mode, press the PLAY MODE button to select a different playback mode. The unit enters the selected playback mode, but the program steps are not erased. You can play the tracks in the programmed order whenever you select PROGRAM with the PLAY MODE button.
Starting playback after selecting the RANDOM mode, however, will erase the contents of the program.

To erase the program
Eject the magazine and open the single disc tray or press the CANCEL button repeatedly to return to the display shown in step 1.

Playing just the beginning of each disc or track (XL-M318 only)

With the intro scan function, you can easily find the disc, or track, you desire.



1. In stop mode, press the PLAY MODE button to light the CONTINUE indicator.

2. Press the INTRO button on the remote to light either the DISC INTRO or INTRO indicator.

3. Press the ► button on the remote or ►/II on the main unit to start the intro scan.

When you select DISC INTRO, the unit plays the first 15 seconds of the first track on each disc, starting from the disc in the single disc tray and continuing through to disc number 6 in the magazine.

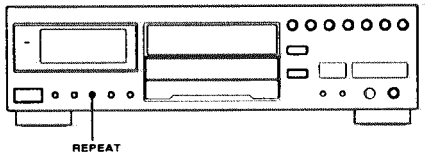
When you select INTRO, the unit plays the first 15 seconds of each track on all the discs loaded in the unit, starting from the first track of the disc in the single disc tray and continuing through to the last track on disc number 6 in the magazine.

To cancel intro scan
Press either ►►I or I◄◄, the intro scan mode is cancelled and the unit resumes normal playback.

The following operations will also cancel the intro scan mode:
- Pressing one of the DISC buttons on the main unit or the remote.
- Pressing one of the TRACK buttons on the remote.
- Pressing either ►► or ◄◄.
- Pressing POWER to turn off the power.

Playing repeatedly

With the repeat function, you can play all the discs, or just one track repeatedly. You can also use the repeat function together with the random playback and program functions.



Press the REPEAT button on the main unit, or press REPEAT on the remote control, so that either the REPEAT or REPEAT 1 indicator lights in the display.

When the REPEAT indicator is lit, all tracks are played back repeatedly.
When the REPEAT 1 indicator is lit, the current track is played back repeatedly. In PROGRAM mode, if an entire disc is programmed in one step (as "ALL") all the tracks on that disc will be played back repeatedly.

To play an entire program repeatedly
Press the REPEAT button on the main unit or remote control to display the REPEAT indicator during program playback.

To play tracks at random repeatedly
Press the REPEAT button on the main unit or remote control to display the REPEAT indicator during random playback.

To cancel repeat mode
Press the REPEAT button on the main unit or remote control to turn off the REPEAT or REPEAT 1 indicator.

The COMPU LINK remote control system

The COMPU LINK (Remote) Control System controls relative operations between components automatically and facilitates various operations.

COMPU LINK Remote Control System — XL-M318BK

COMPU LINK Control System — XL-M218BK

This is a system originated and developed by JVC for facilitating various system operations.
The following is a brief explanation of this system:

Automatic source selection
When you use the provided COMPU LINK cord to connect this unit to other JVC products equipped with COMPU LINK jacks, you can switch system components with a the touch of a button.
One touch of the source selector button on a JVC amplifier or receiver starts operation of the selected component automatically.
Likewise, when you press the play button on one of the system components, the source selector on the amplifier or receiver changes automatically and the previously selected component stops operation within five seconds.

Synchronized recording
Synchronized recording refers to the process in which a JVC cassette deck starts recording, synchronized with this unit. Synchronized recording is carried out as follows:
1. Set the cassette deck to the recording pause mode in accordance with its instructions.
2. To record only certain tracks, make a program of the tracks you desire.
3. Press the ►/II button on the front panel of this unit. The cassette deck automatically starts recording, synchronized with this unit.

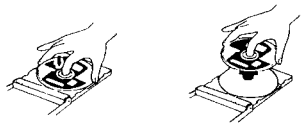
Notes
- *Synchronized recording stops automatically when this unit stops playback.*
- *To cancel synchronized recording, press the ■ STOP button on this unit or on the cassette deck.*
- *Setting the recording pause mode by pressing the II PAUSE button after pressing the ● REC and ► PLAY buttons simultaneously, synchronized recording will not be possible. For details, refer to the instructions for the cassette deck.*

Automatic power on/off function
This function controls the power of the receiver or amplifier or the power of this unit in the following manner.
- When this unit enters playback mode, the receiver or amplifier turns on automatically.
- When the source selector of the receiver or amplifier is set to the CD function mode, this unit turns on automatically.

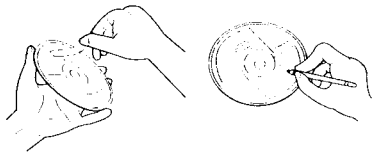
Notes
- *Abnormal operation will result if the power supply of the component(s) is interrupted. If this happens, you must start over again.*
- *Be sure that the COMPU LINK jacks of the individual components are connected with the provided COMPU LINK cord. Also, be sure to fully read the instructions for each component.*

Care and handling

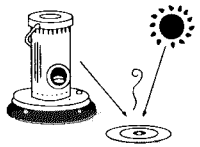
How to handle CDs
When handling compact discs, do not touch the bottom (reflective silver side - the side without the label) of the disc .
Since compact discs are made of plastic, they are easily damaged. If the disc gets dirty, dusty, scratched or warped, the sound will not be picked up correctly and, may cause the CD player to malfunction.



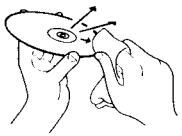
Even on the label side
Do not damage the label side, stick paper to or use adhesive on this surface.



Storage
Make sure to keep discs in their cases. If discs are piled one on top of another without their protective cases, they can be damaged.
Do not put discs in a location where they will be exposed to direct sunlight - or in any place with high temperature or humidity. Avoid leaving discs in your car!



Maintenance of discs
- When there are fingerprints or other dirt adhering to a disc, use a soft, dry cloth, and wipe the disc in a straight line starting from the inside and moving outwards.
- If difficult to clean, wipe the disc with a cloth moistened with water.
- Never use record cleaners, petrol, alcohol or any anti-static agents.



Recommendations for handling the magazine
- Always keep the magazine loaded with 6 disc trays.
- Do not expose it to high temperatures or direct sunlight.
- Do not dismantle the magazine.
- Take care not to drop or hit the magazine. Do not apply any pressure to the disc trays, especially when they are removed from the magazine.
- Never apply solvents such as petrol, thinner, or insecticide to the surfaces of the magazine or disc trays. Such solvents may damage their surfaces.

Troubleshooting

What appears to be a malfunction may not always be serious. Please go through the following list before requesting service.

Symptom	Possible cause	Remedy
The magazine is not expelled when the ▲ button is pressed.	The Power plug is disconnected from the AC outlet.	Connect the plug to an AC outlet.
No sound.	Incorrect output connections.	Connect properly.
The remote control unit does not function.	Batteries are exhausted.	Replace both batteries.
	There is an obstacle between remote control unit and the REMOTE SENSOR of the main unit.	Remove the obstacle.
	Direct sunlight is shining on the REMOTE SENSOR of the main unit.	Shade the unit from the direct sunlight.
Playback is not possible.	A disc is inserted upside down.	Load the discs label-side up.
	Disc is not loaded in the correct position.	Load the disc according to the groove of the disc tray.
	Moisture is condensed inside the unit.	Leave the unit turned on until the moisture evaporates.
Tracks from a particular CD are not played.	The CD is missing.	Load the CD.
	The CD is loaded upside down.	Load the CD with the label side up.
No sound from the headphones.	Output volume is set to the minimum level.	Adjust the volume with the PHONES LEVEL knob.
Sound is intermittent and/or harsh to the ear.	Disc is dirty.	Wipe off the disc surface with a soft cloth.
	Disc is warped.	Replace the disc.
	Disc is scratched.	Replace the disc.

Specifications

General

Format:	Compact disc digital audio
Signal detection system:	Non-contact optical detection
CD capacity:	7 discs
Sampling frequency:	44.1 kHz
Number of Channels:	2
Power requirements:	AC 120 V ~ 60 Hz (adjustable with the voltage selector)
Power consumption:	10 watts (POWER ON) 5 watts (STANDBY)
Dimensions (W x H x D):	XL-M318BK 435 x 126.5 x 325.7 mm 17-3/16 x 5 x 12-7/8 inches XL-M218BK 435 x 126.5 x 319.0 mm 17-3/16 x 5 x 12-9/16 inches
Mass:	10.2 lbs (4.6 kg)

Audio performance

Frequency response:	2 Hz to 20,000 Hz (±1 dB)
Dynamic range:	More than 99 dB (at 1 kHz)
Signal to noise ratio:	More than 107 dB
Total harmonic distortion:	Less than 0.002% (at 1 kHz)
Channel separation:	More than 94 dB (at 1 kHz)
Wow and flutter:	Below the measurable limit

Outputs

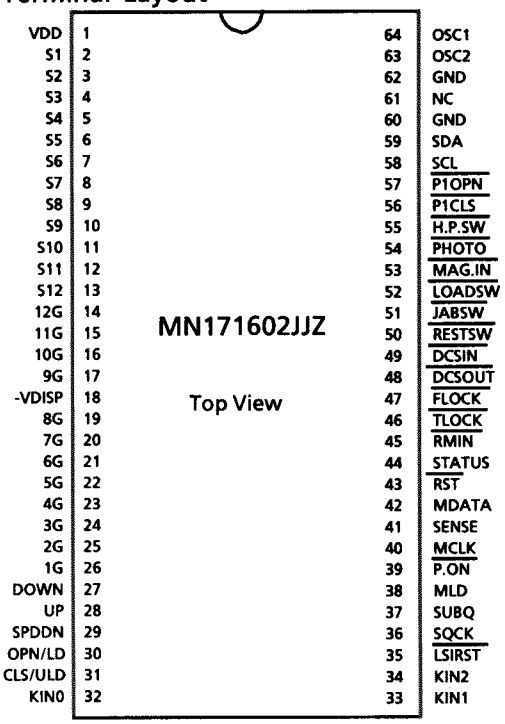
OUTPUT	
output level:	2.0 Vrms (at 10 k Ohms)
PHONES	
Jack type:	6.35 mm in diameter, stereo

Design and specifications subject to change without notice.

Description of Major LSIs

■ MN171602JJZ (IC201) : CD SYSTEM CONTROLLER

1. Terminal Layout



2. Key Matrix

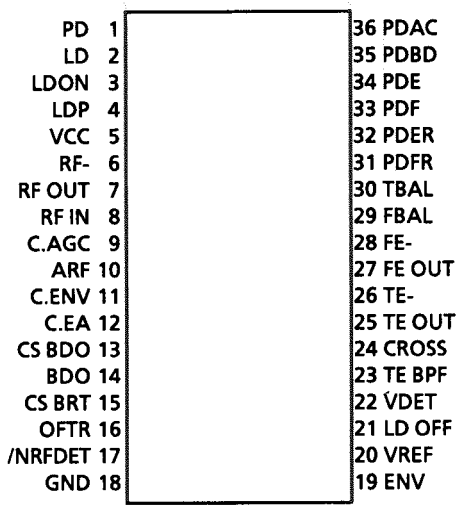
OUT \ IN	KEY IN 0 (32PIN)	KEY IN 1 (33PIN)	KEY IN2 (34PIN)
KEY OUT 0 (22PIN)	PLAY MODE (S201)	DISPLAY (S202)	REPEAT (S203)
KEY OUT 1 (21PIN)	CALL (S204)	MEMORY (S205)	POWER (S206)
KEY OUT 2 (20PIN)	--	DISC 6 (S207)	DISC 2 (S208)
KEY OUT 3 (19PIN)	▶/II (S209)	DISC 5 (S210)	DISC 1 (S211)
KEY OUT 4 (18PIN)	--	DISC 4 (S212)	DISC P (S213)
KEY OUT 5 (17PIN)	⏭ (S214)	DISC 3 (S215)	EJECT (S216)
KEY OUT 6 (16PIN)	⏮ (S217)	CANCEL (S218)	⏏ (S219)

3. Pin Functions Description

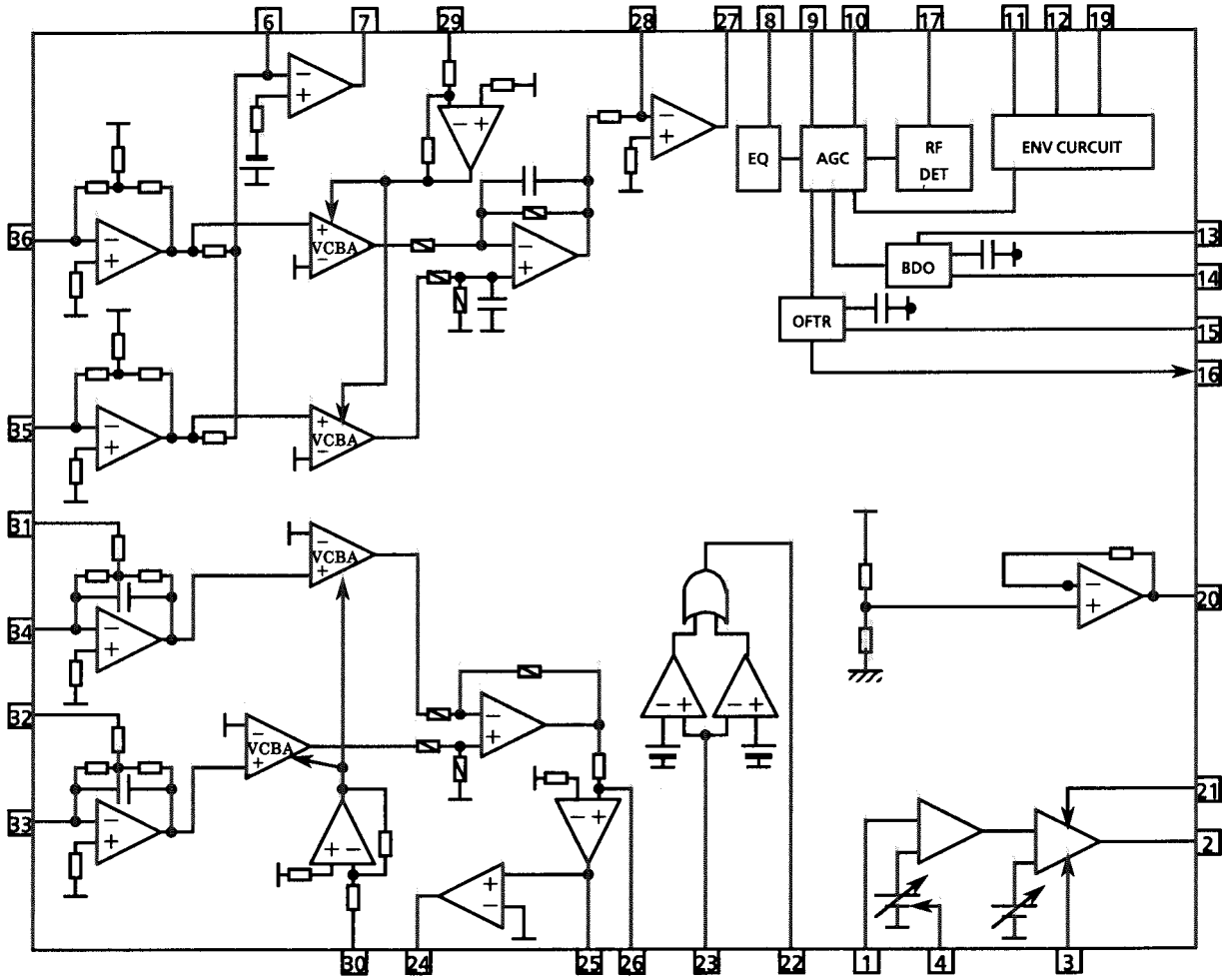
Pin NO.	symbol	I/O	Function	Pin NO.	symbol	I/O	Function
1	VDD	--	Power supply	33	KIN1	I	Key matrix input
2	S1	I	FL segment control output	34	KIN2	I	Key matrix input
3	S2	I	FL segment control output	35	$\overline{\text{LSIRST}}$	O	Reset signal output
4	S3	I	FL segment control output	36	SQCK	O	Clock output for data transfers
5	S4	I	FL segment control output	37	SUBQ	O	80-bit sub Q and 16-bit PCM leveldata
6	S5	O	FL segment control output	38	MLD	O	µ-com command load signal output
7	S6	O	FL segment control output	39	$\overline{\text{P.ON}}$	O	H:power off, L:power on.
8	S7	O	FL segment control output	40	MCLK	O	µ-com command clock signal output
9	S8	O	FL segment control output	41	SENSE	I	SENSE signal input
10	S9	O	FL segment control output	42	MDATA	I	µ-com command data output
11	S10	O	FL segment control output	43	$\overline{\text{RST}}$	I	Reset signal input
12	S11	O	FL segment control output	44	STATUS	I	Status signal input
13	S12	O	FL segment control output	45	$\overline{\text{RMIN}}$	I	Remote control signal input.
14	12G	O	FL grid control output	46	$\overline{\text{TLOCK}}$	I	Lock signal input
15	11G(KOUT6)	O	FL grid control output (Key matrix output)	47	$\overline{\text{FLOCK}}$	I	Focus OK signal input
16	10G(KOUT5)	O	FL grid control output (Key matrix output)	48	$\overline{\text{DCSOUT}}$	O	Compulink signal output
17	9G(KOUT4)	O	FL grid control output (Key matrix output)	49	$\overline{\text{DCSIN}}$	I	Compulink signal input
18	-VDISP	--	FL power supply	50	$\overline{\text{RESTSW}}$	I	Rest SW input.
19	8G(KOUT3)	O	FL grid control output (Key matrix output)	51	$\overline{\text{JABSW}}$	I	JAB switch signal
20	7G(KOUT2)	O	FL grid control output (Key matrix output)	52	$\overline{\text{LOADSW}}$	I	Disc load detect signal
21	6G(KOUT1)	O	FL grid control output (Key matrix output)	53	$\overline{\text{MAG.IN}}$	I	Magazine in signal
22	5G(KOUT0)	O	FL grid control output (Key matrix output)	54	$\overline{\text{PHOTO}}$	I	Disc position count signal input
23	4G	O	FL grid control output	55	$\overline{\text{H.P.SW}}$	I	Home pos. Input
24	3G	O	FL grid control output	56	$\overline{\text{P1CLS}}$	I	"L" with tray closed
25	2G	O	FL grid control output	57	$\overline{\text{P1OPN}}$	I	"L" with tray opened
26	1G	O	FL grid control output	58	SCL	I	Serial clock input
27	DOWN	O	Lifter driving control signal	59	SDA	I	Serial data input
28	UP	O	Lifter driving control signal	60		-	Connect to GND
29	SPDDN	O	H. M. speed control signal	61	NC	-	Non connect
30	OPNULD	O	P1 OPEN or LOAD.	62	GND	-	GND
31	CLS/VLD	O	P1 CLOSE or UNLOAD driving control signal.	63	OSC2	O	Clock oscillation output
32	KIN0	I	Key matrix input	64	OSC1	I	Clock oscillation input

■ AN8806SB (IC600) : RF & SERVO AMP

1. Terminal Layout



2. Block Diagram

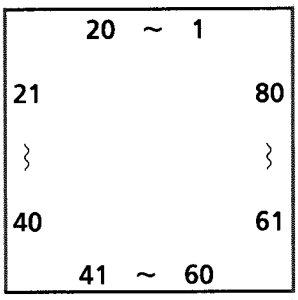


3. Functions

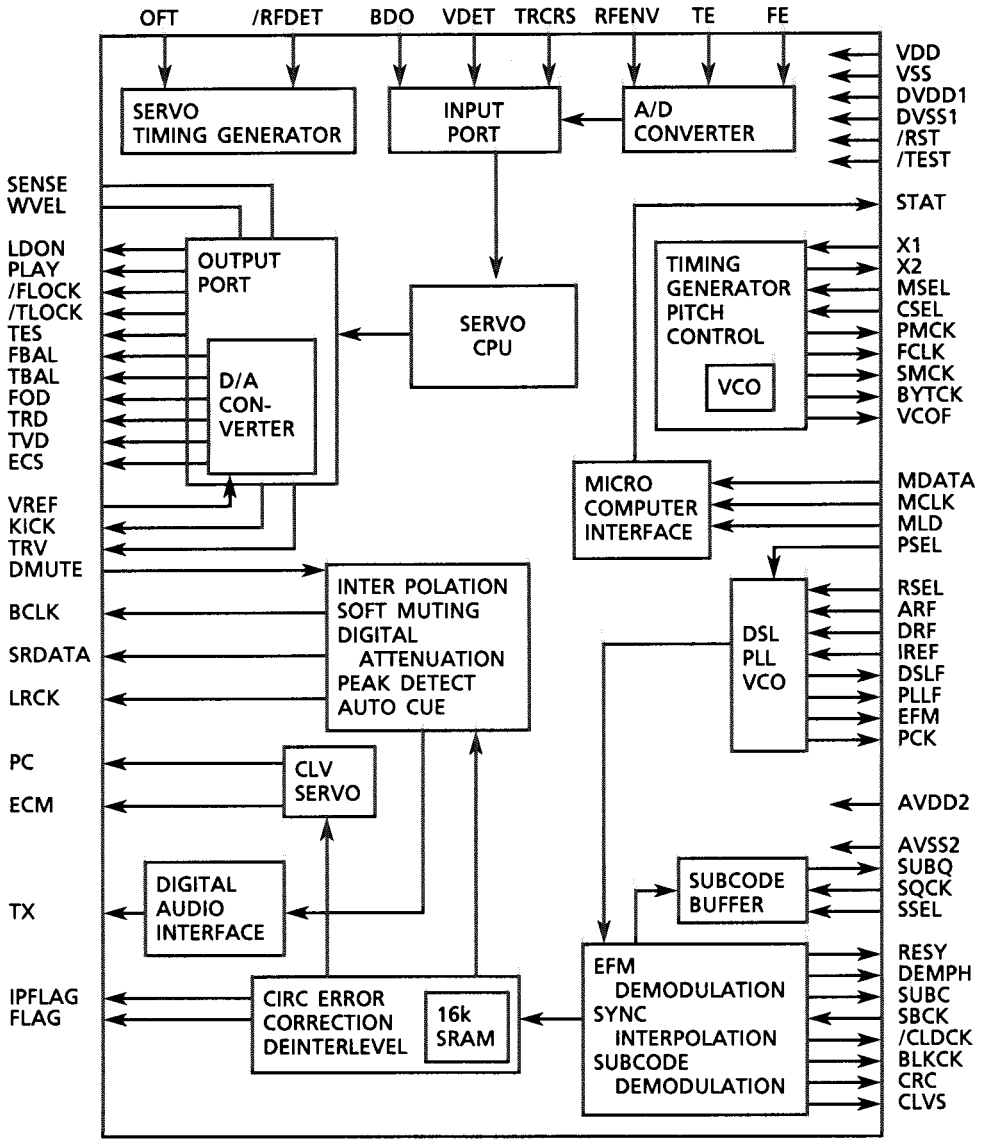
Pin No.	Symbol	I/O	Functions and operations
1	PD	I	APC amp input terminal
2	LD	O	APC amp output terminal
3	LD ON	I	APC ON/OFF control terminal
4	LDP	--	Connected to ground
5	VCC	--	Power supply
6	RF-	I	Inverse input pin for RF amp
7	RF OUT	O	RF amp output
8	RF IN	I	RF input
9	C.AGC	I/O	Connecting pin of AGC loop filter
10	ARF	O	RF output
11	C.ENV	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
12	C.EA	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
13	CS BDO	I/O	A capacitor is connected to detect the lower envelope of the RF signal
14	BDO	O	BDO output pin
15	CS BRT	I/O	A capacitor is connected to detect the lower envelope of the RF signal
16	OFTR	O	Of-track status signal output
17	/NRFDET	O	RF detection signal output
18	GND	--	Ground
19	ENV	O	Envelope output
20	VREF	O	Reference voltage output
21	LD OFF	--	Connect to ground
22	VDET	O	Vibration detection signal output
23	TE BPF	I	Input pin of tracking error through BPF
24	CROSS	O	Tracking error cross output
25	TE OUT	O	Tracking error signal output
26	TE-	I	Inverse input pin for tracking error amp
27	FE OUT	O	Output pin of focus error
28	FE-	I	Inverse input pin for focus error amp
29	FBAL	I	Focus balance control
30	TBAL	I	Tracking balance control
31	PDFR	I/O	F I-V amp gain control
32	PDER	I/O	E I-V amp gain control
33	PDF	I	I-V amp input
34	PDE	I	I-V amp input
35	PD BD	I	I-V amp input
36	PD AC	I	I-V amp input

■ MN662720RB (IC650) : DIGITAL SERVO & DIGITAL SIGNAL PROCESSER

1. Terminal Layout



2. Block Diagram



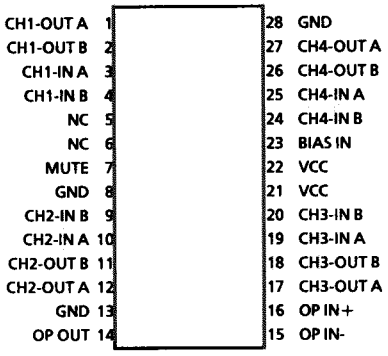
3. Description

Pin No.	symbol	I/O	Description	Pin No.	symbol	I/O	Description
1	BCLK	O	Bit clock output pin for SRDATA	41	TES	—	Not used
2	LRCK	O	L/R distinction signal output	42	PLAY	—	〃
3	SRDATA	O	Serial data output	43	WVEL	—	〃
4	DVDD1	—	Power supply(Digital)	44	ARF	I	RF signal input
5	DVSS1	—	Connected to GND(Digital)	45	IREF	I	Reference current input pin
6	TX	O	Digital audio interface signal	46	DRF	I	Bias pin for DSL
7	MCLK	I	µ-com command clock signal input (Data is latched at signal's rising point)	47	DSLF	I/O	Loop filter pin for DSL
8	MDATA	I	µ-com command data input	48	PLLF	I/O	Loop filter pin for PLL
9	MLD	I	µ-com command load signal input	49	VCOF	—	Connected to AVDD2
10	SENSE	O	Sense signal output (OFT,FESL,NACEND,NAJEND,POSAD,SFG)	50	AVDD2	—	Power supply (Analog)
11	/FLOCK	O	Lock signal for Focus L : pull	51	AVSS2	—	Connected to GND(Analog)
12	/TLOCK	O	Lock signal for Tracking L : pull	52	EFM	—	Not used
13	BLKCK	O	Subcode · block · clock signal output	53	PCK	—	〃
14	SQCK	I	Outside lock for sub-code Q resister input	54	PDO	—	〃
15	SUBQ	O	Sub-code Q-code output	55	SUBC	O	Subcode serial output data output
16	DMUTE	I	Muting input (H : MUTE)	56	SBCK	—	Clock input for subcode serial output
17	STATUS	O	Status signal (CRC,CUE,CLVS,TTSTOP,ECLV,SQOK)	57	VSS	—	Connected to GND(for X'tal cscillation circuit)
18	/RST	I	Reset signal input (L :Reset)	58	X1	I	Input of 16.9344MHz X'tal oscillation circuit
19	SMCK	—	Not used	59	X2	—	Not used
20	PMCK	—	Not used	60	VDD	—	Power supply(for X'tal cscillation circuit)
21	TRV	O	Traverse enforced output	61	BYTCK	—	Not used
22	TVD	O	Traverse drive output	62	/CLDCK	O	Subcode · Frame · Clock signal output
23	PC	—	Not used	63	FCLK	O	X'tal frame clock output
24	ECM	O	Spindle motor drive signal (Enforced mode output) 3-State	64	IPPLAG	O	Interpolation flag output H : Interpolation
25	ECS	O	Spindle motor drive signal (Servo error signal output)	65	FLAG	—	Flag output
26	KICK	O	Kick pulse output	66	CLVS	—	Not used
27	TRD	O	Tracking drive output	67	CRC	—	〃
28	FOD	O	Focus drive output	68	DEMPH	O	De-emphasis ON signal (H : ON)
29	VREF	I	Reference voltage input pin for D/A output block(TVD,FOD,FBAL,TBAL)	69	RESY	—	Not used
30	FBAL	O	Focus Balance adjust signal output	70	NC1	—	〃
31	TBAL	O	Tracking Balance adjust signal output	71	/TEST	—	Pull up (+5V)
32	FE	I	Focus error signal input(Analog input)	72	AVDD1	—	Power supply (Digital)
33	TE	I	Tracking error signal input(Analog input)	73	NC2	—	Not used
34	RF ENV	I	RF envelope signal input(Analog input)	74	AVSS1	—	Connected to GND
35	VDET	I	Vibration detect signal input(H : detect)	75	NC3	—	Not used
36	OFT	I	Off track signal input(H : off track)	76	RSEL	I	Rf signal polarity appointed pin Light level "H" → RSEL = H Light level "L" → RSEL = L
37	TRCRS	I	Track cross signal input	77	CSEL	I	X'tal oscillation frequency appointed pin L : 16.9344MHz H : 33.8688MHz
38	/RFDET	I	RF detect signal input (L : detect)	78	PSEL	I	Terminal of Test
39	BDO	I	BDO input pin (H : drop out)	79	MSEL	I	SMCK pin output of frequency select terminal L :SMCK+4.2336MHZ H :SMCK+8.4672MHZ
40	LDON	O	Laser ON signal output (H : on)	80	SSEL	—	SUBQ terminal output mode select pin H : Mode for Q code buffer

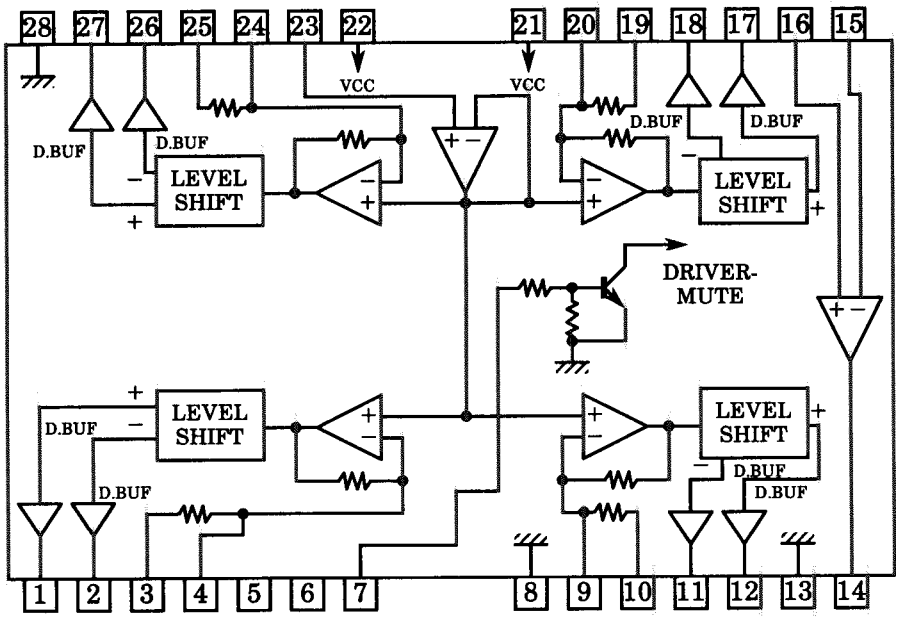
XL-M218BK
XL-M318BK

■ BA6897FP (IC700) : BTL DRIVER

1. Terminal Layout



2. Block Diagram



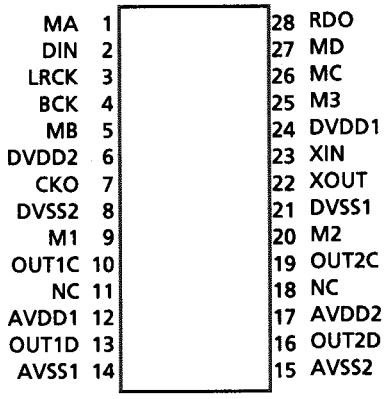
3.Description

Pin No.	Symbol	I/O	Description
1 2	CH1-OUT A CH1-OUT B	O	Focus drive output
3	CH1-IN A	I	Focus drive input
4 5,6 10 19 24	CH1-IN B NC CH2-IN A CH3-IN A CH4-IN B	—	Non connection
7	MUTE	I	Mute signal input pin
9 20	CH2-IN B CH3-IN B	I I	Spindle motor drive input Feed motor drive input
25	CH4-IN A	I	Tracking drive input

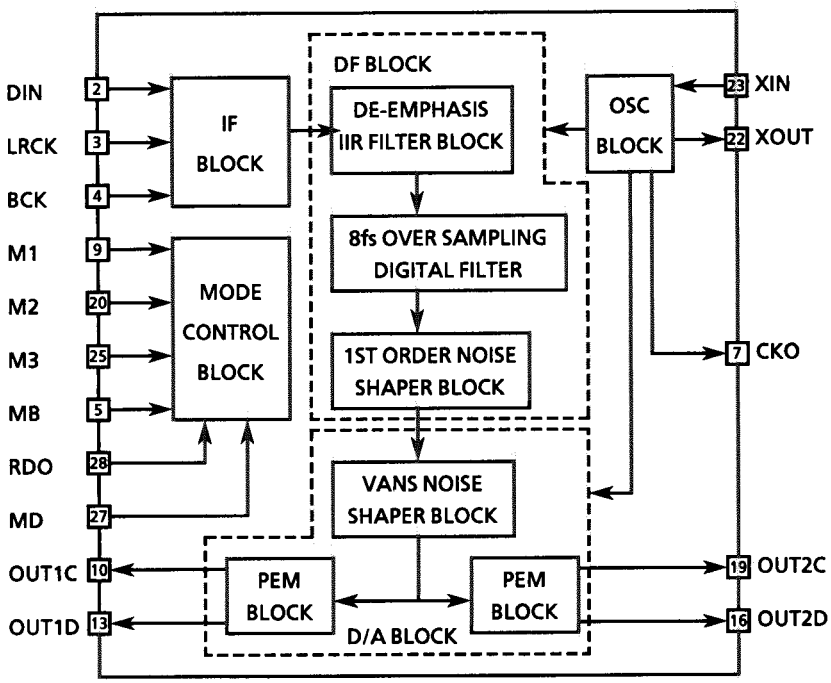
Pin No.	Symbol	I/O	Description
8,13,28	GND	—	GND
11 12	CH2-OUT B CH2-OUT A	O	Spindle motor drive output
14	OP OUT	O	OP amp output
15,16	OP IN	I	OP amp input
17 18	CH3-OUT A CH3-OUT B	O	Feed motor drive output
21,22	Vcc	—	Power supply
23	BIAS IN	I	Input pin of Bias
26 27	CH4-OUT B CH4-OUT A	O	Tracking drive output

■ MN35503 (IC750) : D / A CONVERTER

1. Terminal Layout



2. Block Diagram

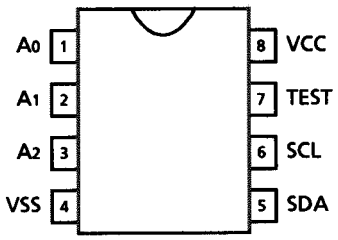


3.Description

Pin No	Symbol	I/O	Description	Pin No	Symbol	I/O	Description
1	MA	--	Connected to ground	15	AVSS2	--	Analog ground 2
2	DIN	I	Data input	16	OUT2D	O	2D PEM output
3	LRCK	I	LR clock input	17	AVDD2	--	Analog power supply 2
4	BCK	I	Bit clock input	18	NC	--	Non connection
5	MB	I	De-emphasis ON signal	19	OUT2C	O	2C PEM output
6	DVDD2	--	Digital power supply 2	20	M2	--	Connected to ground
7	CKO	I	Clock output	21	DVSS1	--	Digital ground pin 1
8	DVSS2	--	Digital ground 2	22	XOUT	O	Crystal oscillator output
9	M1	--	Connected to ground	23	XIN	I	Crystal oscillator input
10	OUT1C	O	1C PEM output	24	DVDD1	--	Digital power supply 1
11	NC	--	Non connection	25	M3	--	Connected to ground
12	AVDD1	--	Analog power supply 1	26	MC	--	Connected to ground
13	OUT1D	O	1D PEM output	27	MD	I	Reset signal / Digital Att. control signal input
14	AVSS1	--	Analog ground 1	28	RDO	--	Not used

■ AT24C01A-10PC (IC202) : Serial Eeprom

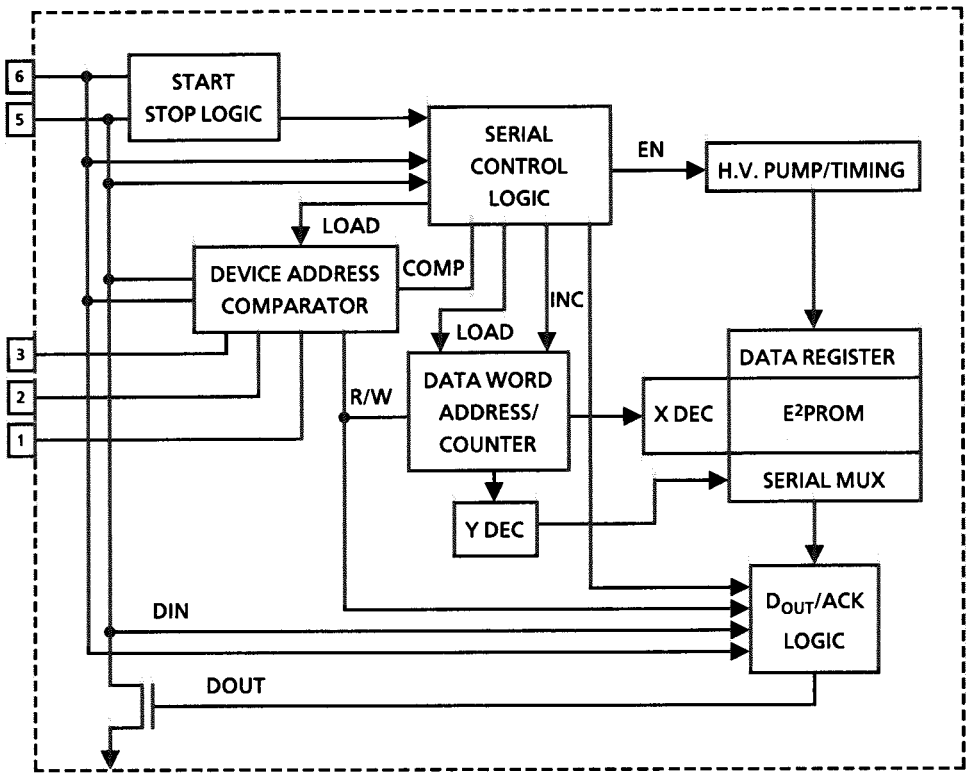
1. Terminal Layout



2. Terminal Functions

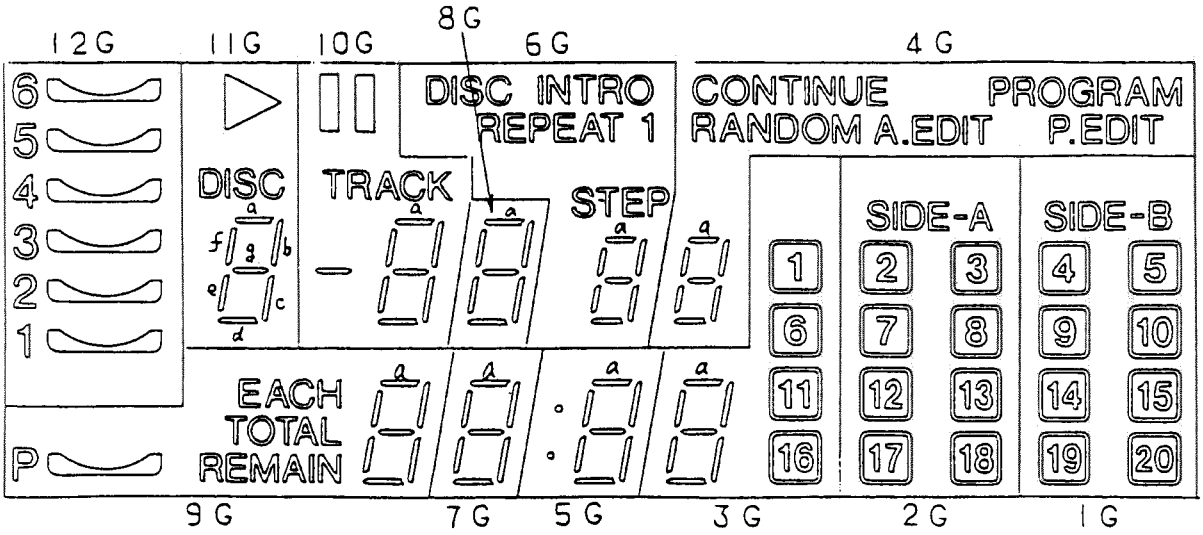
Pin No.	Symbol	Functions
1~3	A_0~A_2	ADDRESS INPUT (NOT USED)
4	VSS	GND
5	SDA	SERIAL DATA
6	SCL	SERIAL CLOCK
7	TEST	TEST PIN (CONNECTED TO GND)
8	VCC	POWER SUPPLY

3. Block Diagram



Internal Connections of FL Display

GRID ASSIGNMENT



ANODE CONNECTION

	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	3		⬭	EACH			STEP	° °	RANDOM		SIDE-A	SIDE-B
S2	(2)		TRACK	TOTAL			1		A.EDIT	1	2	4
S3	2	DISC		REMAIN			REPEAT		P.EDIT	6	7	9
S4	(1)	▷		(P)			INTRO		CONTINUE	11	12	14
S5	1		□□	P			DISC		PROGRAM	16	17	19
S6	(3)	d	d	d	d	d	d	d	d	d	18	20
S7	4	e	e	e	e	e	e	e	e	e	13	15
S8	(4)	c	c	c	c	c	c	c	c	c	8	10
S9	5	g	g	g	g	g	g	g	g	g	3	5
S10	(5)	f	f	f	f	f	f	f	f	f		
S11	6	b	b	b	b	b	b	b	b	b		
S12	(6)	a	a	a	a	a	a	a	a	a		

TERMINAL CONNECTION

TERMINAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
ELECTRODE	F	F	NP	P S1	P S2	P S3	P S4	P S5	P S6	P S7	P S8	P S9	P S10	P S11	P S12	NP				
TERMINAL NO.						17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ELECTRODE						12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	F	F

Notes F: Filament NP: No Pin
G: Grid
P: Anode

Disassembly Procedures

(1) Top cover removal
1. Remove 2 screws Ⓐon the rear side and 4 screws Ⓑ on both sides of the cover.
2. Remove the cover.

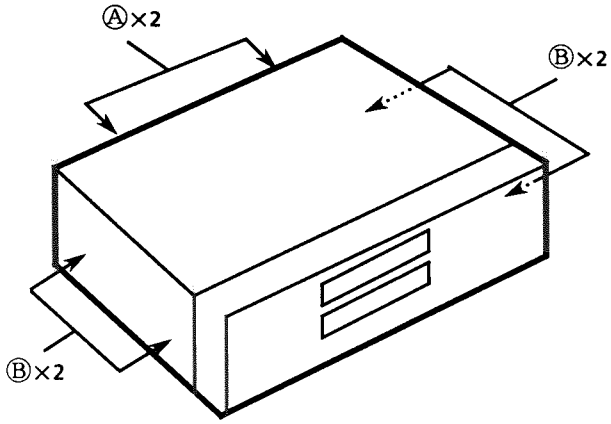


Fig1

(2) Rear panel removal
1. Remove the top cover.
2. Remove the 6 screws Ⓐ.
3. Remove the rear panel.

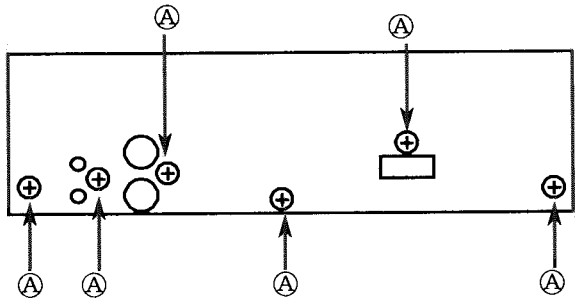


Fig2 Rear view

(3) Removing the front panel assembly
1. Remove the top cover.
2. Disconect the conectors CN201 and CN302.
3. Remove the 3 screws Ⓒ on the bottom of the front panel.
4. Release the hooks Ⓓ holding the front panel, and remove the front panel assembly.

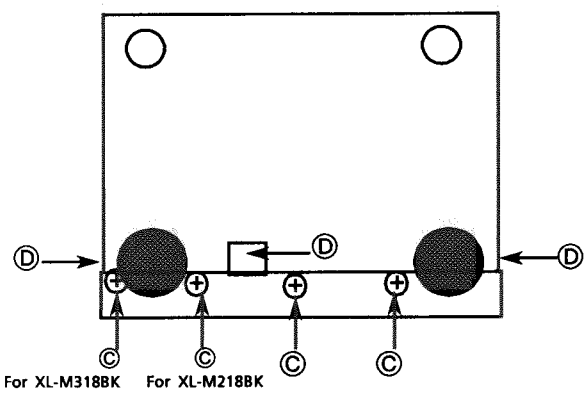


Fig3 BOTTOM VIEW

(4) Audio PCB(ENN-468-2) removal
1. Remove the top cover and rear panel.
2. Disconect the conector CN301 and CN302.
3. Remove the a screw Ⓕ.
4. Remove the Audio PCB(ENN-468-1).

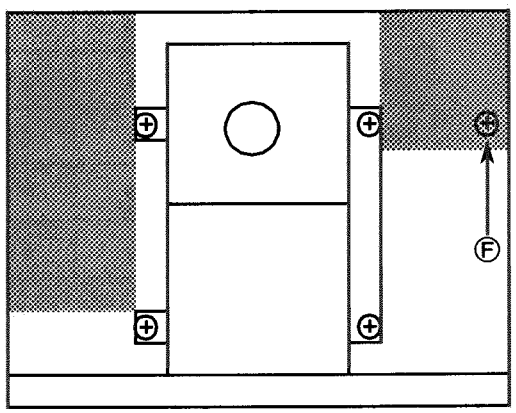


Fig4

Ⓐ .. E73273-006 Ⓑ ... E406308-001 Ⓒ ... SDSG3006M Ⓕ ... GBSG3008CC

(5) CD Main PCB(ENN-468-1) removal

1. Remove the top cover and rear panel.
2. Disconect the conector CN101,CN201 and CN651.
3. Remove the 3screws Ⓕ and 2 screws Ⓙ.
4. Remove the CD Main PCB(ENN-468-1).

(6) Front PCB(ENN-468-4,5) removal

1. Remove the top cover and front panel ass'y.
2. Disconect the conector CN201 and CN302.
3. Remove the 10 screws Ⓗ.
4. Remove the Front PCB.

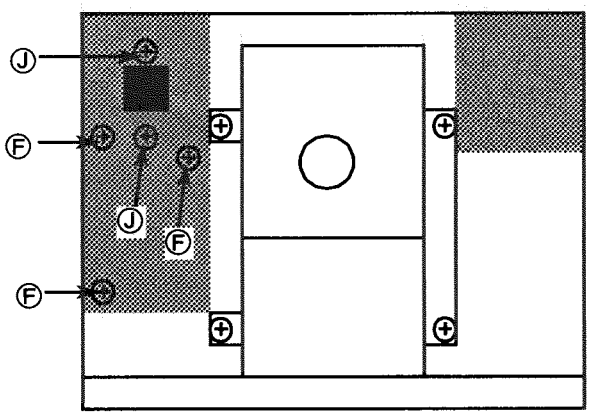


Fig5

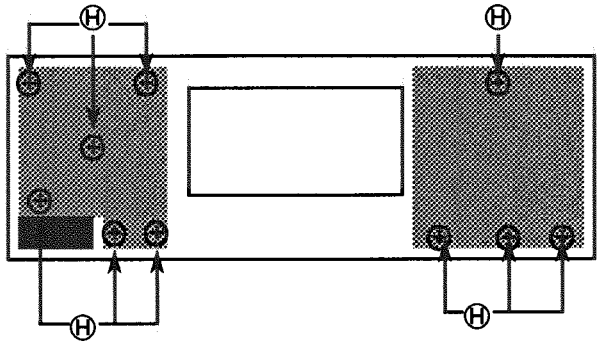


Fig6 Rear view

(7) CD changer mecha ass'y removal

1. Remove the top cover.
2. Remove the front panel ass'y.
3. Disconnect the CN212,CN214 and J213.
4. Remove the 4 screwsⒺ.
5. Remove it.

(8) CD PCB(ENN-467) removal

1. Remove the top cover.
2. Remove the front panel ass'y and CD changer mecha ass'y.
3. Remove the 2 screws Ⓗ.
4. Remove it.

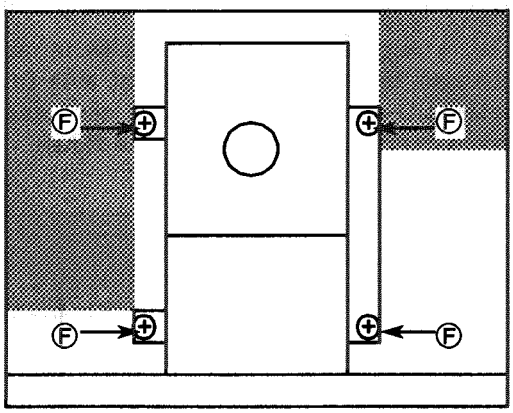


Fig7

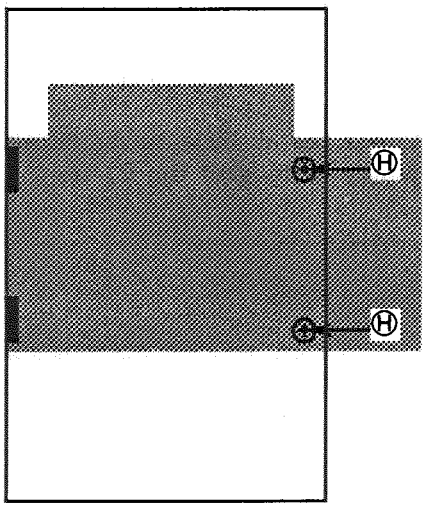


Fig8

Ⓕ .. GBSG3008CC Ⓙ ... E65389-004 Ⓗ ... SDSF2608Z

(9) Travers mecha ass'y removal
1. Remove the CD mech. ass'y.
2. Remove the CD PCB..
3. Remove the 4screwsⒾ.
4. Remove it.

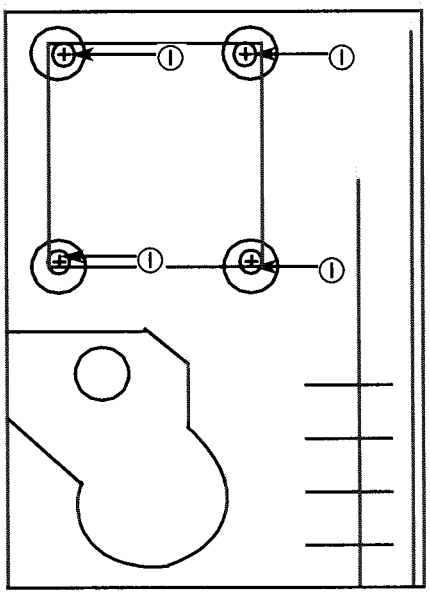


Fig9 Mech. botton side

(10) Assembling Travers mecha ass'y
1. Put insulators grooves certainly into cuttungs on the traverse mech..
2. Insert springs into the insulators.
3. Secure screws to fix them.

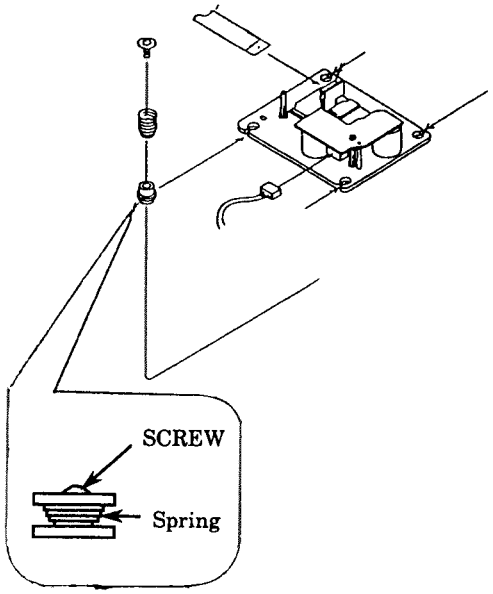


Fig10 Traverse macha.

■ EJECTION OF DISC AND MAGAZINE IN POWER-OFF MODE

(11) Disc
1. Rotate gear Ⓚ to move the elevator to the disc`s position inside the unit.
2. Turn the idler pulley Ⓛ to return the disc on the tray.
3. Lower the elevator to the bottom and rotate pulley Ⓛ to eject the P1 tray.

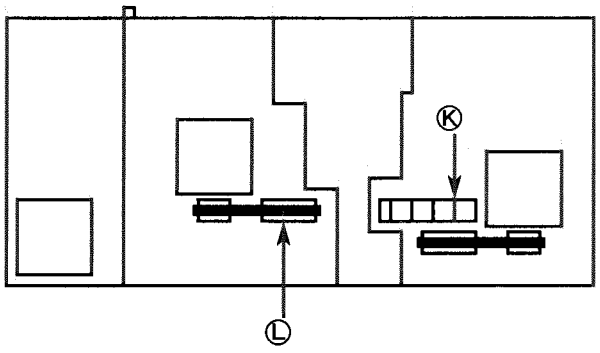


Fig11 Mech. right side

(12) Magazine
1. Return a disc into magazine. (See the above(11).)
2. Pull a magazine lock lever which is on the changer mech. toward the front side to release the magazine lock and eject the magazine. (See an arrow in the figure.)

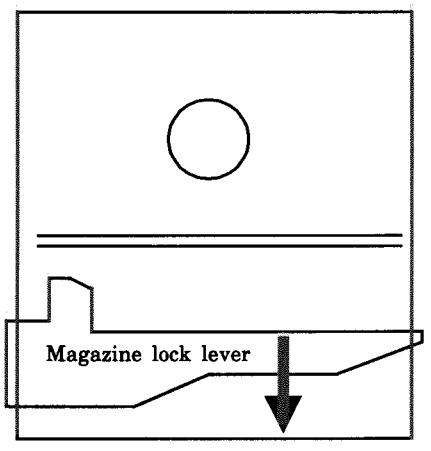


Fig12 Mech. top side

Ⓘ .. E408361-001

(13) Elevator ass'y removal
1. Move the elevator ass`y UP side.
2. Remove the the 2 screwsⓂ and 2 screwsⒼ.
3. Remove the elevator ass`y.

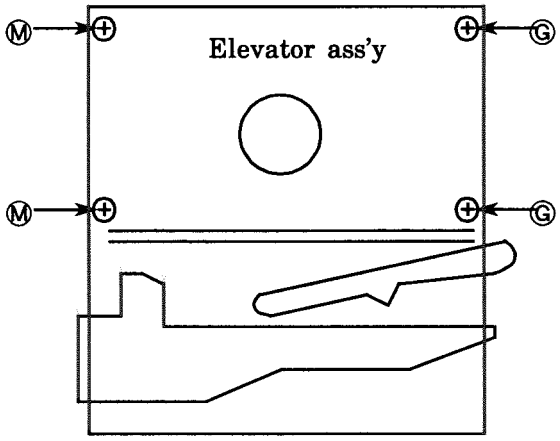


Fig13 Mech. up side

(14) Magazine guide(U) removal
1. Remove the 2 screwsⓂ and 2 screws Ⓖ.
2. Push the hook up and pull the magazine lock lever toward front side to remove the magazine guide(U) from the hook. (See an arrow in the figure.)
3. Remove the magazine guide(B) ass`y..

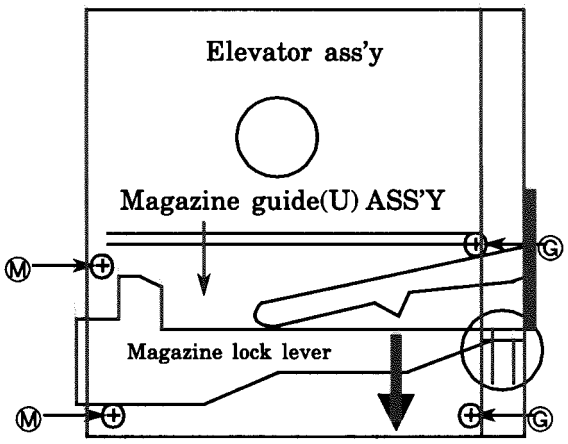


Fig14

(15) Magazine guide(U) removal
1. Remove the magazine guide(U) ass'y.
2. Lifting the magazine guide(B) makes it release.

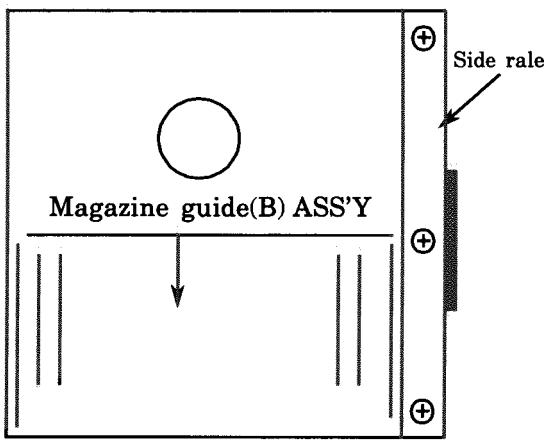


Fig15

(16) Right side rale removal
1. Remove the elevator ass'y and magazine guide(U) ass'y.
2. Rotate gearⓀ to move the cam plate to the front side.
3. Remove the mech.PCB of the side position.
4. Remove the 4 screws Ⓖ holding the side rale and bkt. remove the side rale.

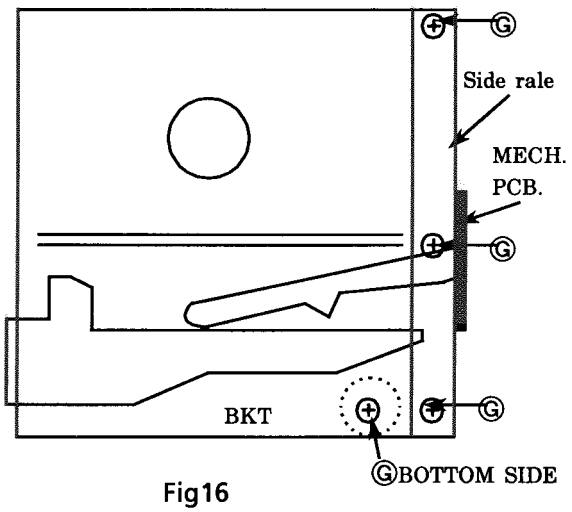


Fig16

Ⓖ .. SBSF2608Z Ⓜ ... SDST2606Z

(17) Pickup removal
1. Remove the CD mechanism assembly.
2. Release the shaft to remove the pickup (Fig 9).

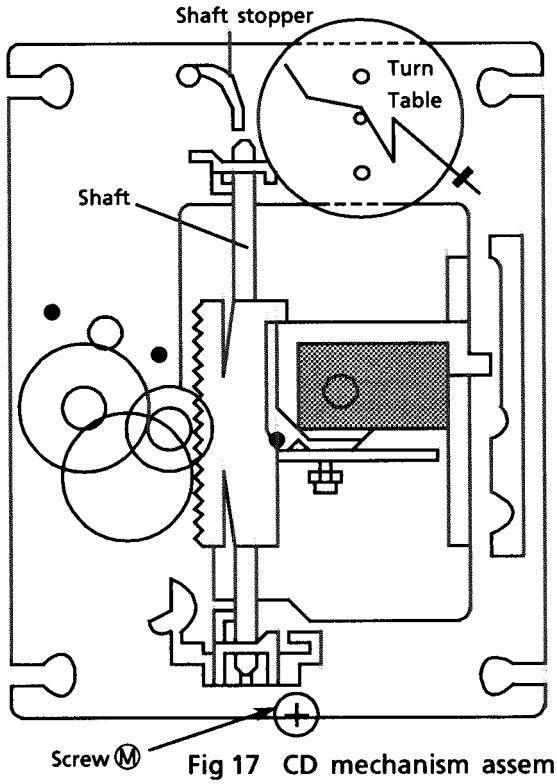


Fig 17 CD mechanism assembly

(18) Spindle motor removal
1. Remove the CD mechanism assembly.
2. Remove the turntable, and remove the two screws retaining the spindle motor.
3. Remove the screws retaining the spindle and feed motor P.C. Board and unsolder it.

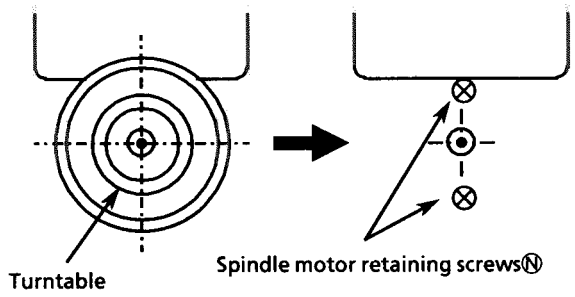


Fig 18

(19) Spindle motor installation
1. Tighten the 2 screws to the same torque.
2. Fasten the spindle and feed motor P.C. board with the screw and solder.
3. Install the turntable.When installing, press straight down at the center of the turntable until the distance from the surface of the mechanism base to the turntable is exactly 19.4±0.1mm.

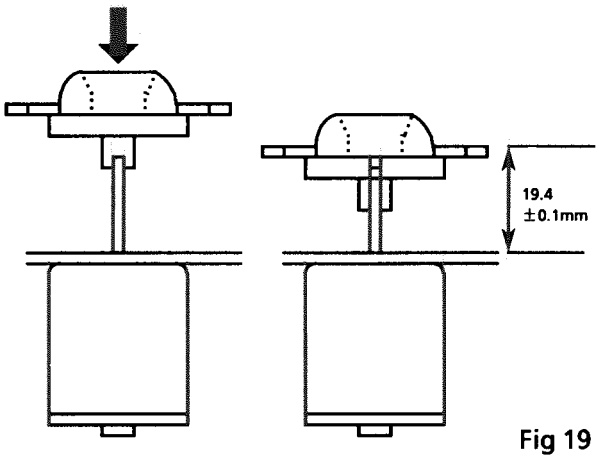


Fig 19

(14) After inserting the turntable, bond the motor shaft and turntable together (at the section marked by an arrow in fig 12 on the left below).

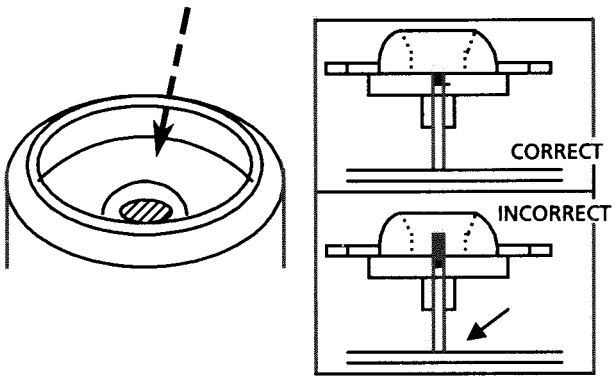


Fig 20

(20) Use "LOCKTITE" #460 bonding agent, and apply as little as possible. Take care not to allow any excess bonding agent to get onto the turntable. Be extremely careful not to allow bonding agent to adhere to the motor bearing (the section marked by an allow in fig 14 on the right).

Ⓜ .. E406293-001 Ⓝ ... SDSP2003N

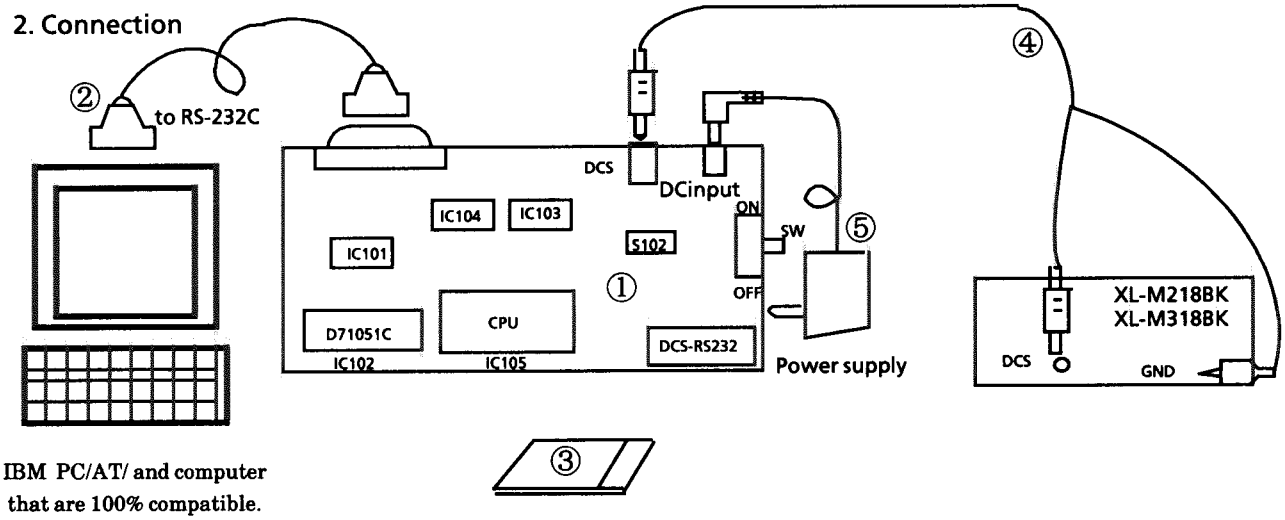
Self-diagnosis for pickup

From DCS output, this model reads automatically adjusted data for CD so that the pickup can be judged defective or not. Following shows its details.

1. Necessary items

① DCS → 232C Converting board (No.EBSJ1022)
② 232C cord (straight)
③ Floppy disc for self-diagnosis (No.EBSJ1022)
④ DCS cord
⑤ Power supply DC 6.3V (AA-SV11J--America/Canada) (AA-SV11Bs--the UK) (AA-SV11G--Germany) (AA-SV11EF--Continental Europe) (AA-SV11U--the Other aria)
⑥ CD (without scratches or damage)

2. Connection



IBM PC/AT/ and computer that are 100% compatible.

3. Procedure to use CD self-diagnosis jig by IBM PC

Two com pins are frequently adopted in recent IBM AT and its substitute RS232C port.
This jig can also use both COM1 and COM2.
DEFAULT is COM1. Indicate "2" to the option only for COM2.

When COM1 is used,···

I AUTO 01

When COM2 is used,···

I AUTO 02

[NOTE] Press ESC key to stop processing during the operation.
Contents of the attached floppy IBM self-diagnosis program VER.1.00 Execution file.
(Mistake the conection/Mistake the polarity)

4. Judgment

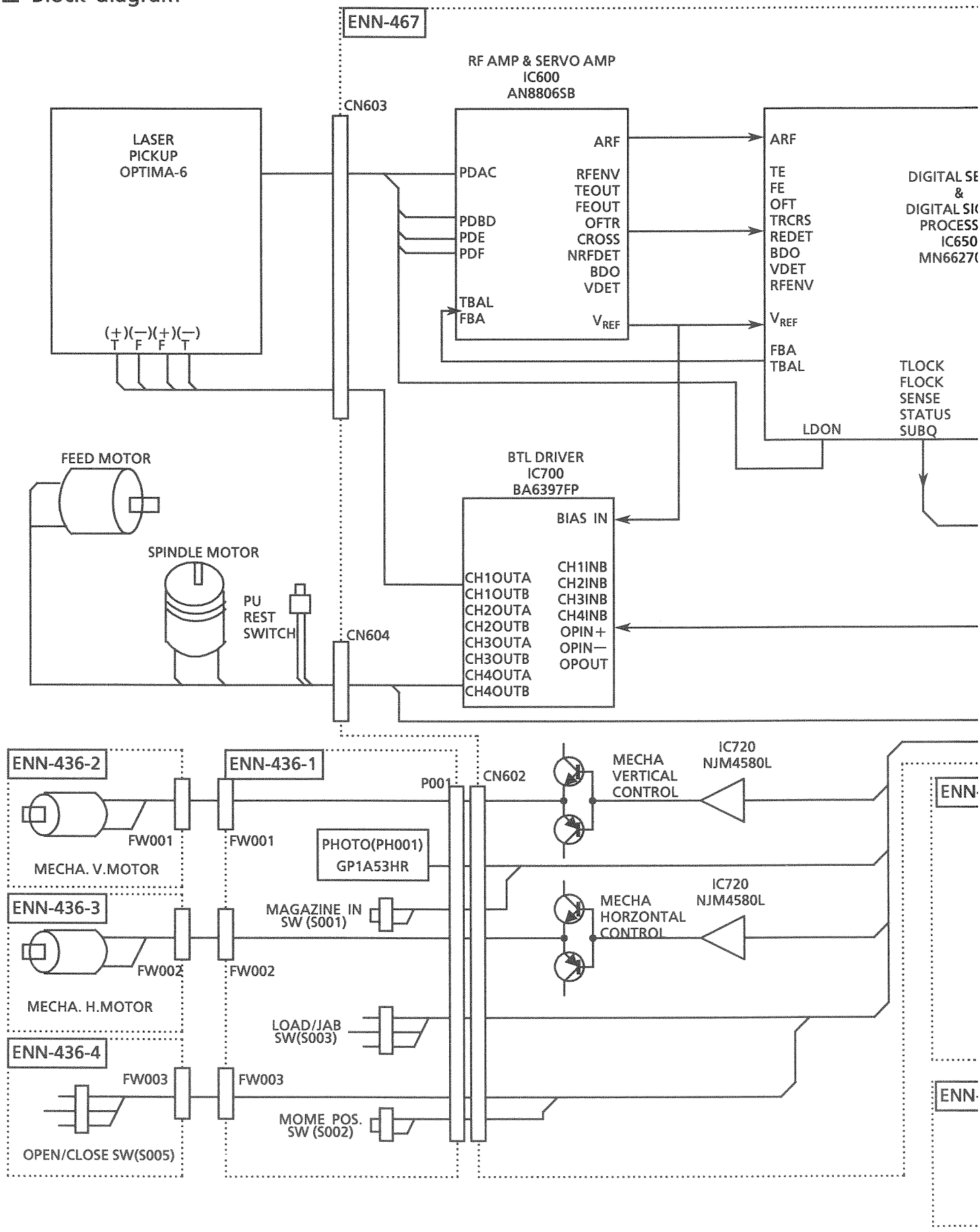
To judge whether pickup is defective or not, firstly process of automatic adjustment is checked by automatic adjustment flag. And, the value(automatic adjustment value for focus gain) displayed on the screen is used for its final judgment.

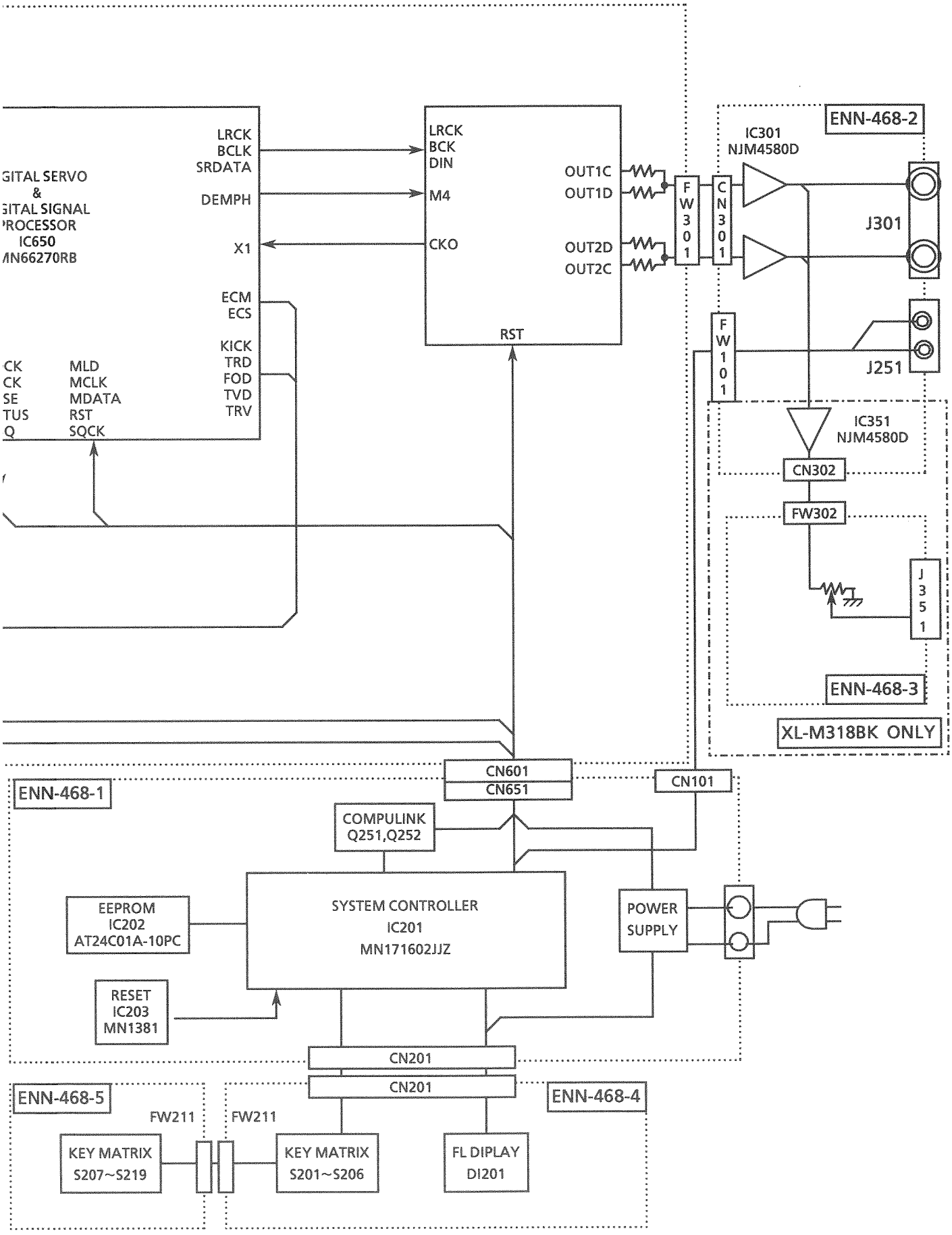
It is supposed that the pickup is defective or the signal path is faulty if the Flag1 or Flag0 indicates not "F" but a figure.
(See the following example.)

Flag1	Flag0	Details	Supposed cause
0	0	Automatic adjustment for tracking offset is failed.	The automatic adjustment is not completed. (Trouble in circuit.)
0	1	Automatic adjustment for focus offset is failed. (Disc does not rotate.)	The lens does not move. (Power supply is not turned on. Wire is cut.)
0	3	Automatic rough adjustment for focus gain is failed.	
0	7	Automatic rough adjustment for tracking gain is failed. (The focus and tracking gain are not locked though the disc rotates.)	Laser deterioration (low RF signal output). Offset beam.
0	F	Disc rotates, focus and tracking gain are locked and automatic rough adjustment for tracking gain is also completed though automatic adjustment for tracking balance is failed.	Laser deterioration (low RF signal output). Offset beam.
1	F	Automatic adjustment for focus balance is failed. (TOC is not read tough the disc rotates.)	RF signal output is low. Tracking loop is not turned on. RF jitter is too much.
3	F	Automatic rough adjustment for focus gain is failed.	
7	F	Automatic rough adjustment for tracking gain is failed.	
F	F	All automatic adjustments are completed.	

The pickup is judged defective though the Flag0 and Flag1 indicate "F" and those adjustments are completed if the adjustment value exceeds 19dB.

■ Block diagram

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&
GITAL SIGNAL
PROCESSOR
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MN66270RB
LRCK
BCLK
SRDATA
DEMPH
X1
ECM
ECS
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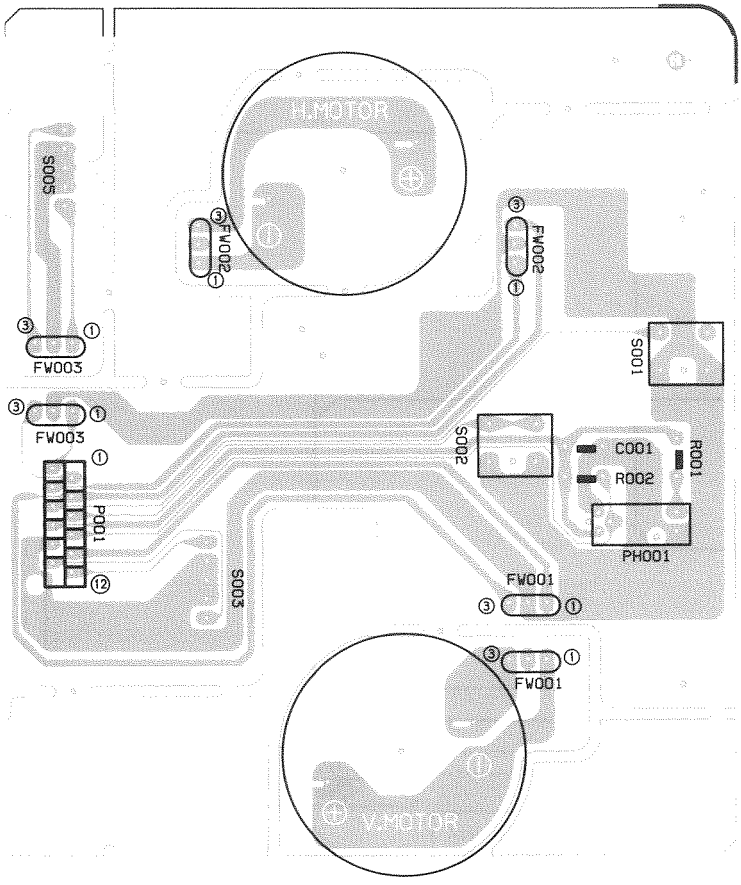
TRD
FOD
TVD
TRV
CK
CK
SE
TUS
Q
MLD
MCLK
MDATA
RST
SQCK
LRCK
BCK
DIN
M4
CKO
RST
OUT1C
OUT1D
OUT2D
OUT2C
FW301
CN301
IC301
NJM4580D
ENN-468-2
J301
FW101
J251
IC351
NJM4580D
CN302
FW302
J351
ENN-468-3
XL-M318BK ONLY
CN601
CN651
CN101
ENN-468-1
COMPULINK
Q251,Q252
EEPROM
IC202
AT24C01A-10PC
SYSTEM CONTROLLER
IC201
MN171602JJZ
POWER
SUPPLY
RESET
IC203
MN1381
CN201
CN201
ENN-468-5
ENN-468-4
FW211
FW211
KEY MATRIX
S207~S219
KEY MATRIX
S201~S206
FL DIPLAY
DI201

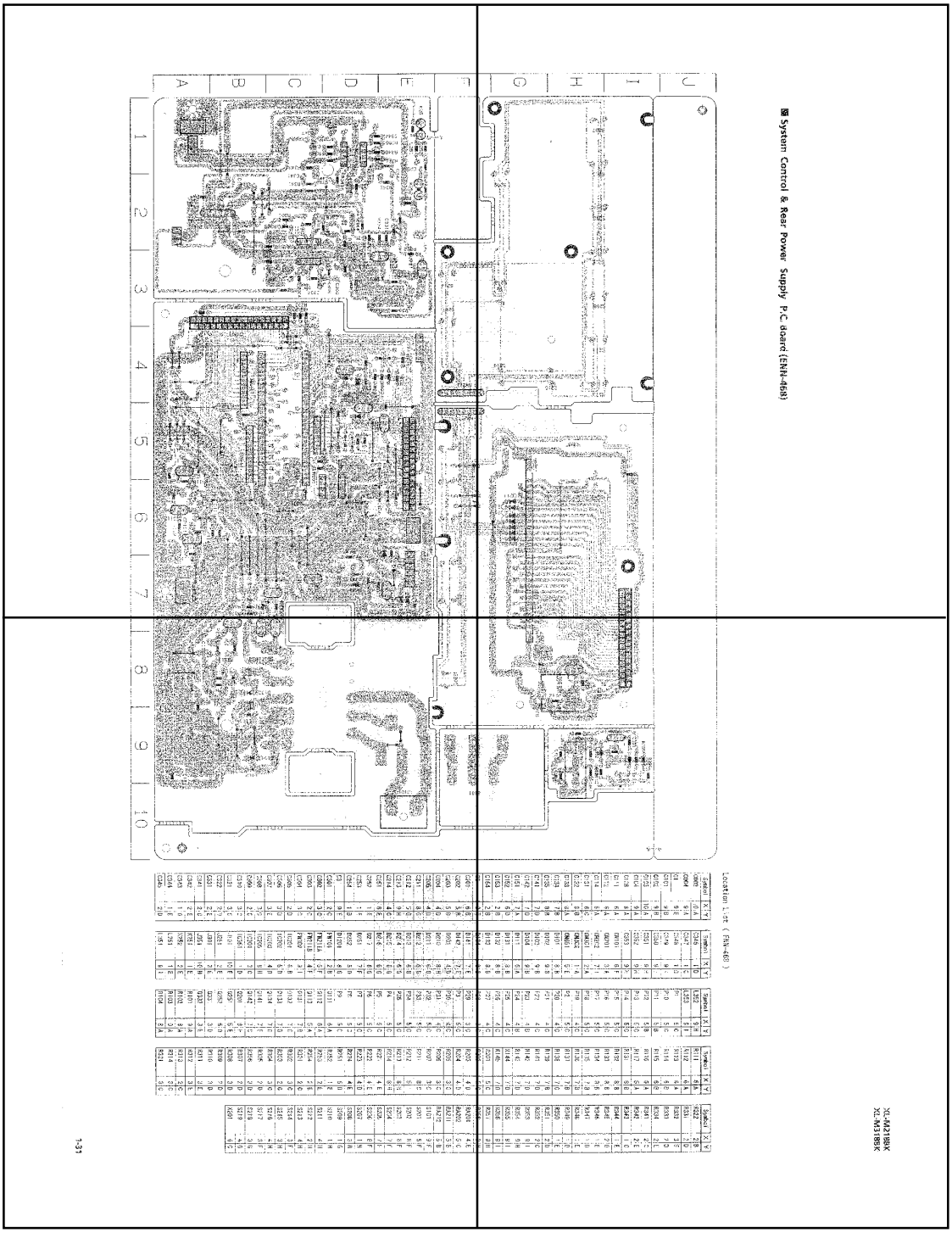
Printed Circuit Boards

■ Changer Mech. P.C. Board (ENN-436)



P1-31-a

P1-31-b



P1-31-c

P1-31-d

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C
D
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2
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4
5
6
7
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L251
R252
K252
C253
C254
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C348
C346
C347
C344
R350
R348
R344
R346
R343
C341
R341
R342
R352
R345
R351
IC351
R347
R349
C343
EP153
C264
CN302
C154
FW101
CN301
C153
R301
C303
R303
C309
C301
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C305
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C331
R334
R253
J251
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R307
R331
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R314
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C306
R310
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C307
R311
R308
C308
R312
J301
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S217
R205
R207
CN201
RA201
R221
R222
R223
R224
IC203
C205
C204
D201
R204
R203
D202
R251
Q252
Q251
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Q202
RA211
C114
Q113
R117
R116
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D111
C111
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R112
CP101
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Q111
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D251
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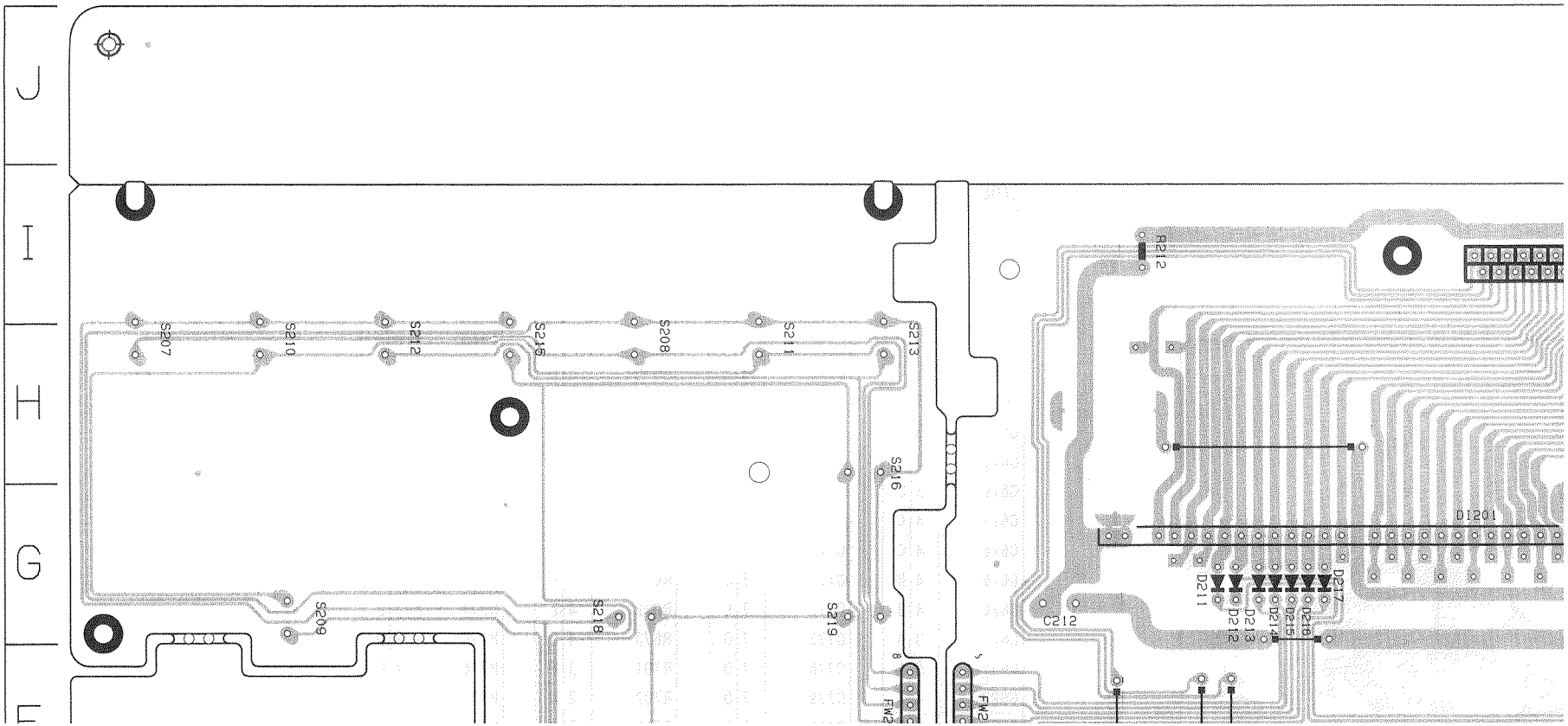
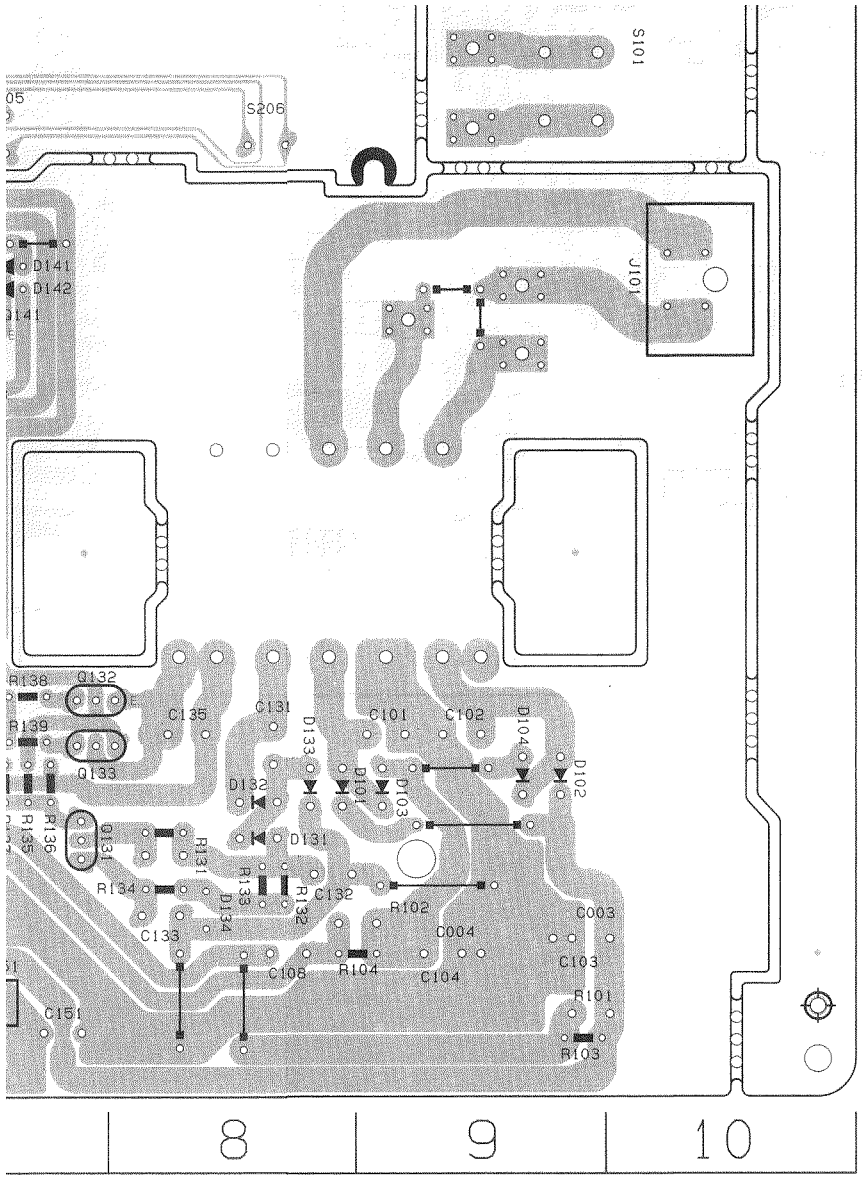
S204
S205

■ System Control & Rear Power Supply P.C. Board (ENN-468)





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C205	4	D
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C213	9	H
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C252	1	E
C253	1	E
C254	1	B
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D134	8	B
D141	7	E
D142	7	E
D201	4	D
D210	8	H
D211	6	G
D212	6	G
D213	6	G
D214	6	G
D215	6	G
D216	6	G
D217	6	G
D251	7	E
D252	5	D
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FW211A	5	F
FW211B	4	F
FW302	9	I
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IC202	5	D
IC203	4	D
IC205	8	H
IC301	3	C
IC351	1	D
J101	10	E
J251	2	E
J301	3	E
J351	10	H
K251	1	E
K252	2	E
L251	1	E
L351	9	I

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Q112	6	A
Q113	5	A
Q131	7	B
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Q133	7	B
Q134	7	C
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Q142	7	C
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Q251	5	E
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RA212	5	B
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S202	6	F
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S204	7	F
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S212	2	H
S213	4	H
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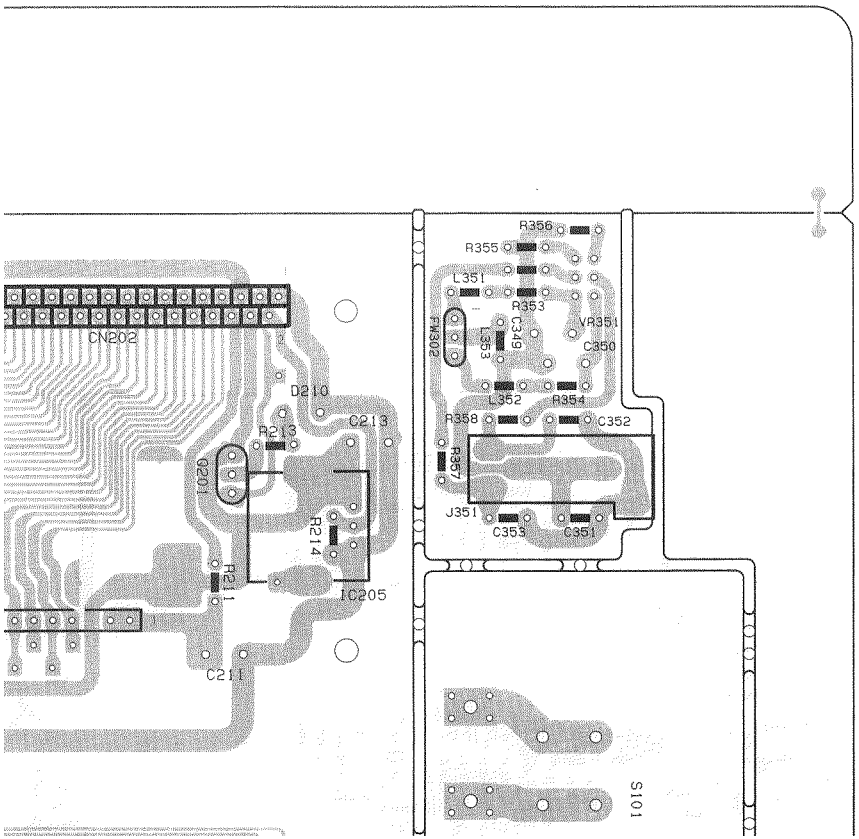
P1-31-c



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C114	5	A
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C135	8	B
C141	7	D
C142	7	D
C151	7	A
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C201	6	B

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C348	1	D
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C351	9	H
C352	9	H
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R142	7	D
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R203	4	D

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R342	2	E
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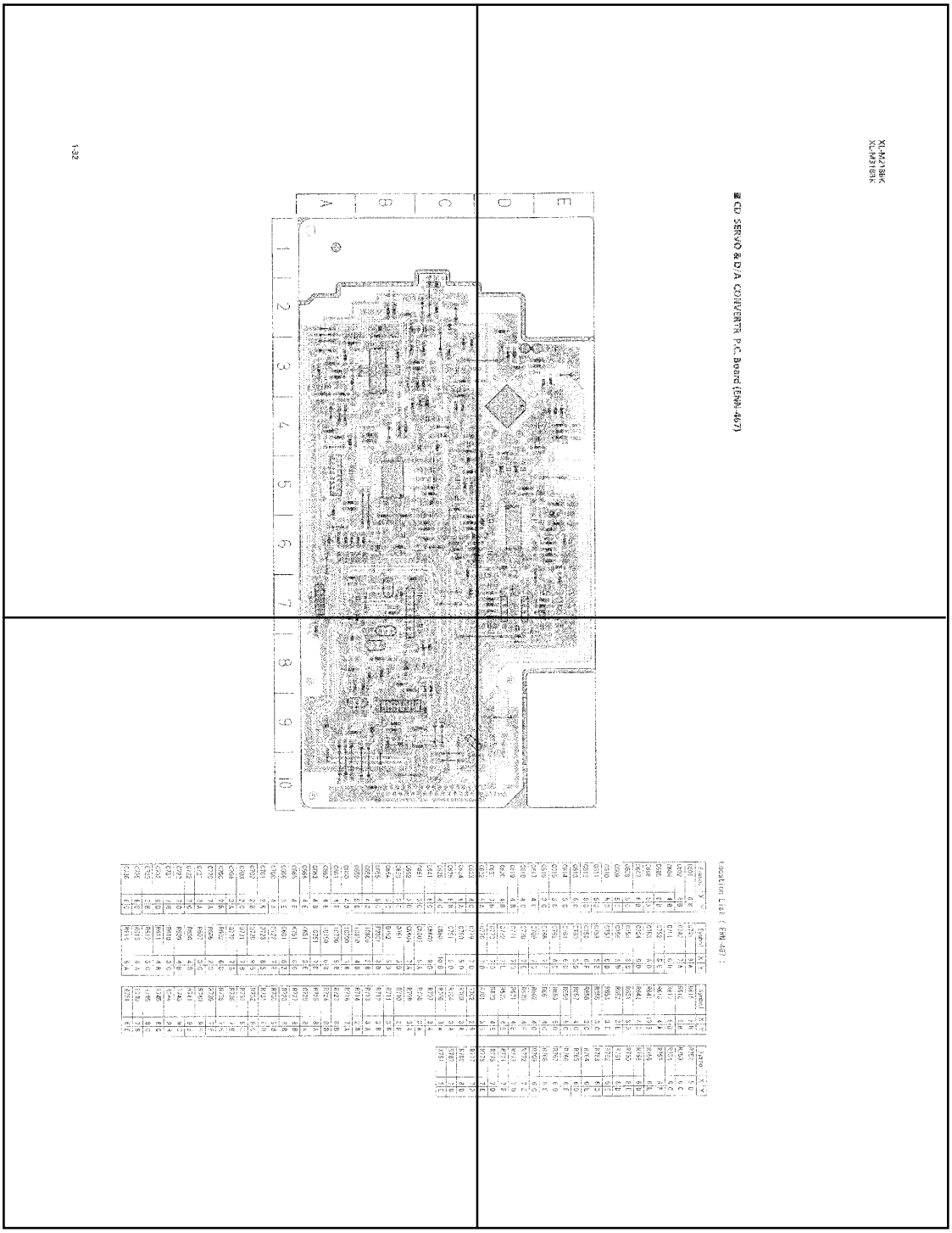
P1-32-a P1-32-b



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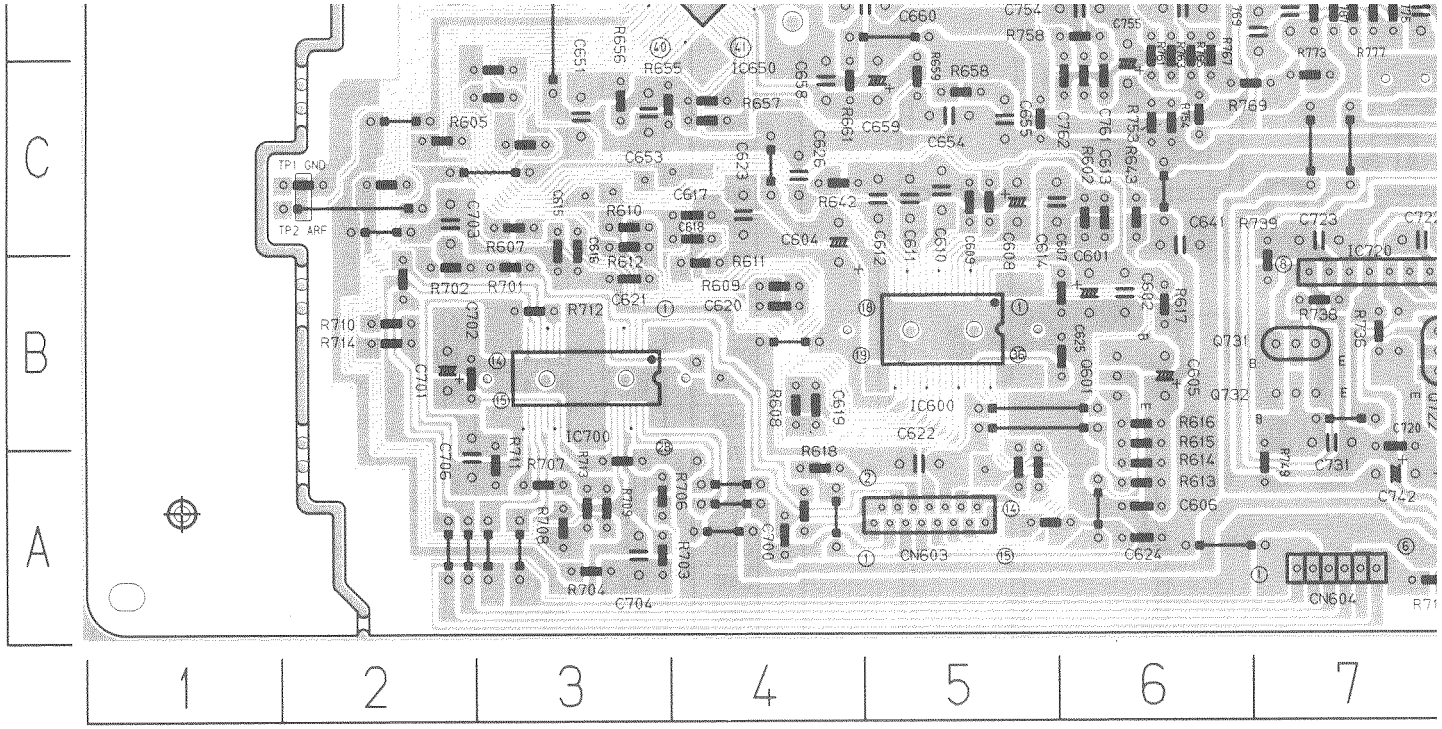
C
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IC700
IC600
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R656
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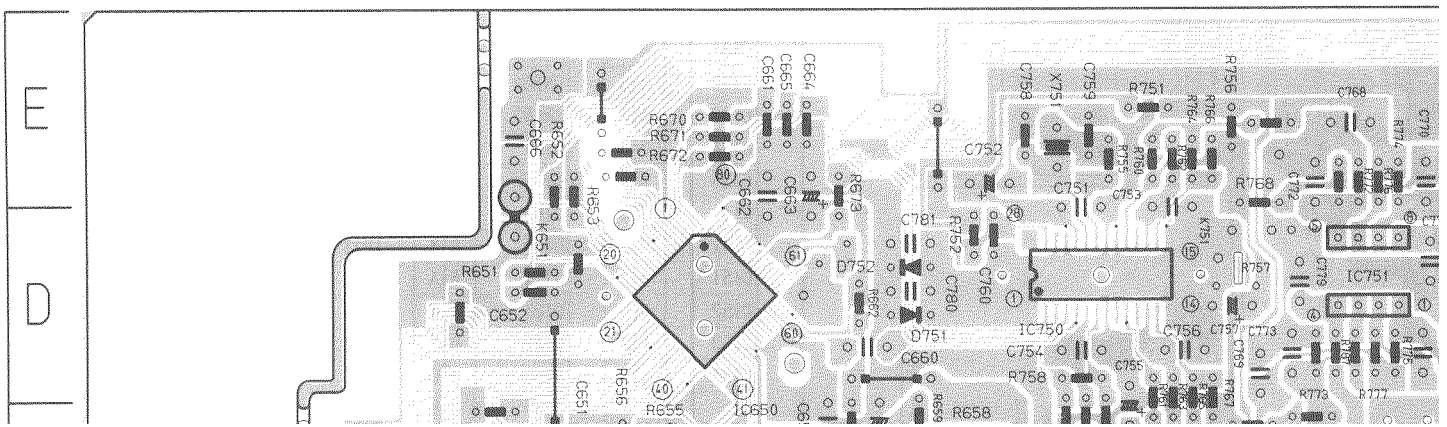
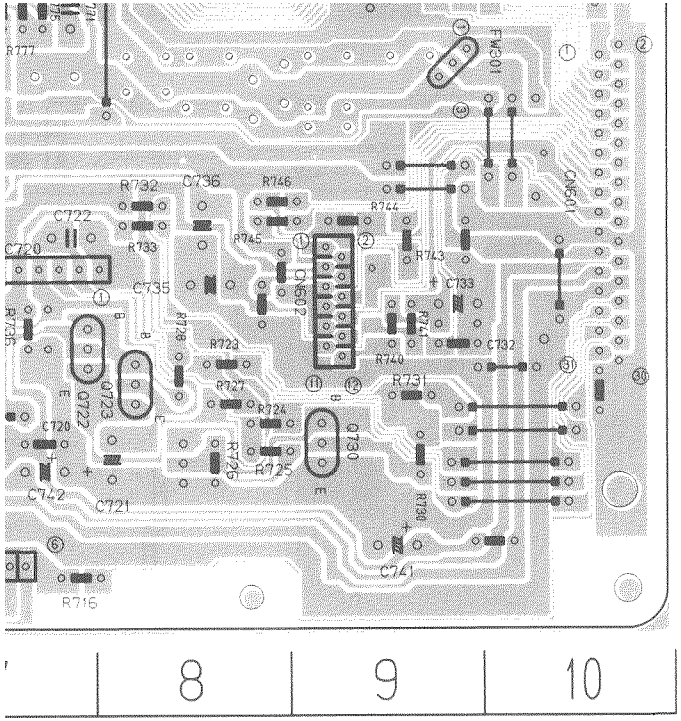
C606
C624
R758
C754
C755
R769
R773
R777
C716
C713
R753
R643
R602
C641
R739
C723
IC720
R736
R735
Q731
Q732
C720
C731
C742
R748

■ CD SERVO & D/A CONVERTR P.C. Board (ENN-467)



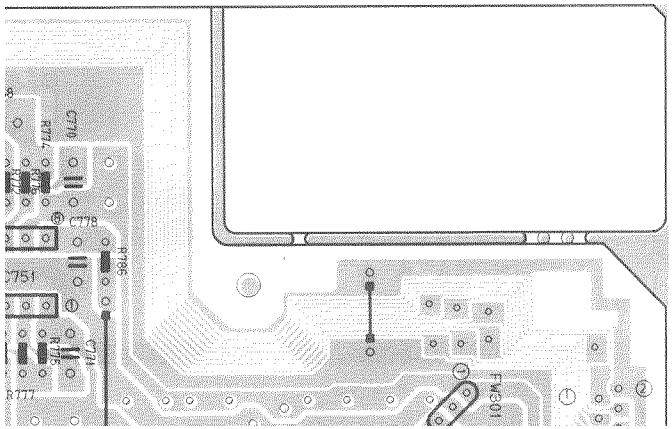


C622	5	A
C623	4	C
C624	6	A
C625	6	B
C626	4	C
C641	6	C
C651	3	C
C652	3	D
C653	3	C
C654	5	C
C655	5	C
C658	4	C
C659	5	C
C660	4	D
C661	4	E
C662	4	E
C663	4	D
C664	4	E
C665	4	E
C666	3	E
C700	4	A
C701	2	B
C702	2	B
C703	2	C
C704	3	A
C706	2	B
C720	7	A
C721	8	A
C722	7	C
C723	7	C
C731	7	B
C732	9	B
C733	9	B
C735	8	B
C736	8	C

C778	7	D
C779	7	D
C780	5	D
C781	5	D
CN601	10	B
CN602	9	B
CN603	5	A
CN604	7	A
D751	5	D
D752	5	D
FW301	9	D
IC600	5	B
IC650	4	D
IC700	3	B
IC720	8	B
IC750	6	D
IC751	7	D
K651	3	E
K751	6	D
Q601	6	B
Q722	7	B
Q723	8	B
Q730	9	B
Q731	7	B
Q732	7	B
R602	6	C
R605	2	C
R607	3	C
R608	4	B
R609	4	B
R610	3	C
R611	4	B
R612	3	C
R613	6	A
R614	6	A

R701	3	B
R702	2	B
R703	3	A
R704	3	A
R706	3	A
R707	3	A
R708	3	A
R709	3	A
R710	2	B
R711	3	B
R712	3	B
R713	3	A
R714	2	B
R716	7	A
R723	8	B
R724	8	B
R725	8	A
R726	8	A
R727	8	B
R728	8	B
R730	9	B
R731	9	B
R732	8	C
R733	8	C
R736	7	B
R738	7	B
R739	7	B
R740	9	B
R741	9	B
R743	9	C
R744	9	B
R745	8	C
R746	8	C
R749	7	B
R751	6	E

R776	7	E
R777	7	D
R786	8	D
R787	7	D
X751	5	E



Location List (ENN-467)

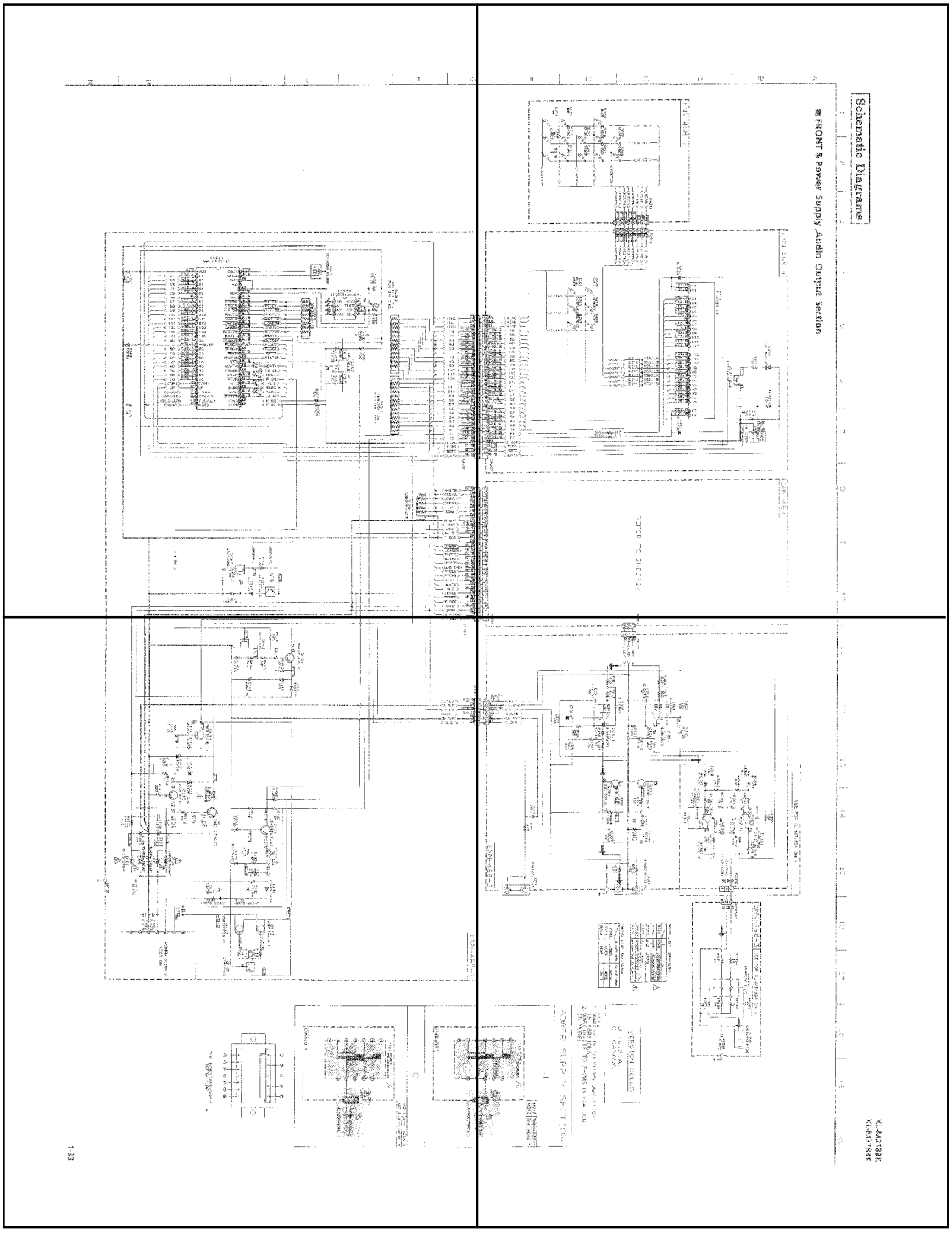
Symbol	X	Y
C601	6	B
C602	6	B
C604	4	B
C605	6	B
C606	6	A
C607	6	B
C608	5	C
C609	5	C
C610	5	C
C611	5	C
C612	5	C
C613	6	C
C614	5	C
C615	3	C
C616	3	C
C617	4	C
C618	4	C
C619	4	B
C620	4	B
C621	3	B
C622	5	A
C623	4	C

Symbol	X	Y
C741	9	A
C742	7	A
C751	6	D
C752	5	E
C753	6	D
C754	6	D
C755	6	C
C756	6	D
C757	6	D
C758	5	E
C759	6	E
C760	5	D
C761	6	D
C762	6	D
C768	7	E
C769	7	D
C770	7	E
C771	7	D
C772	7	E
C773	7	D
C778	7	D
C779	7	D

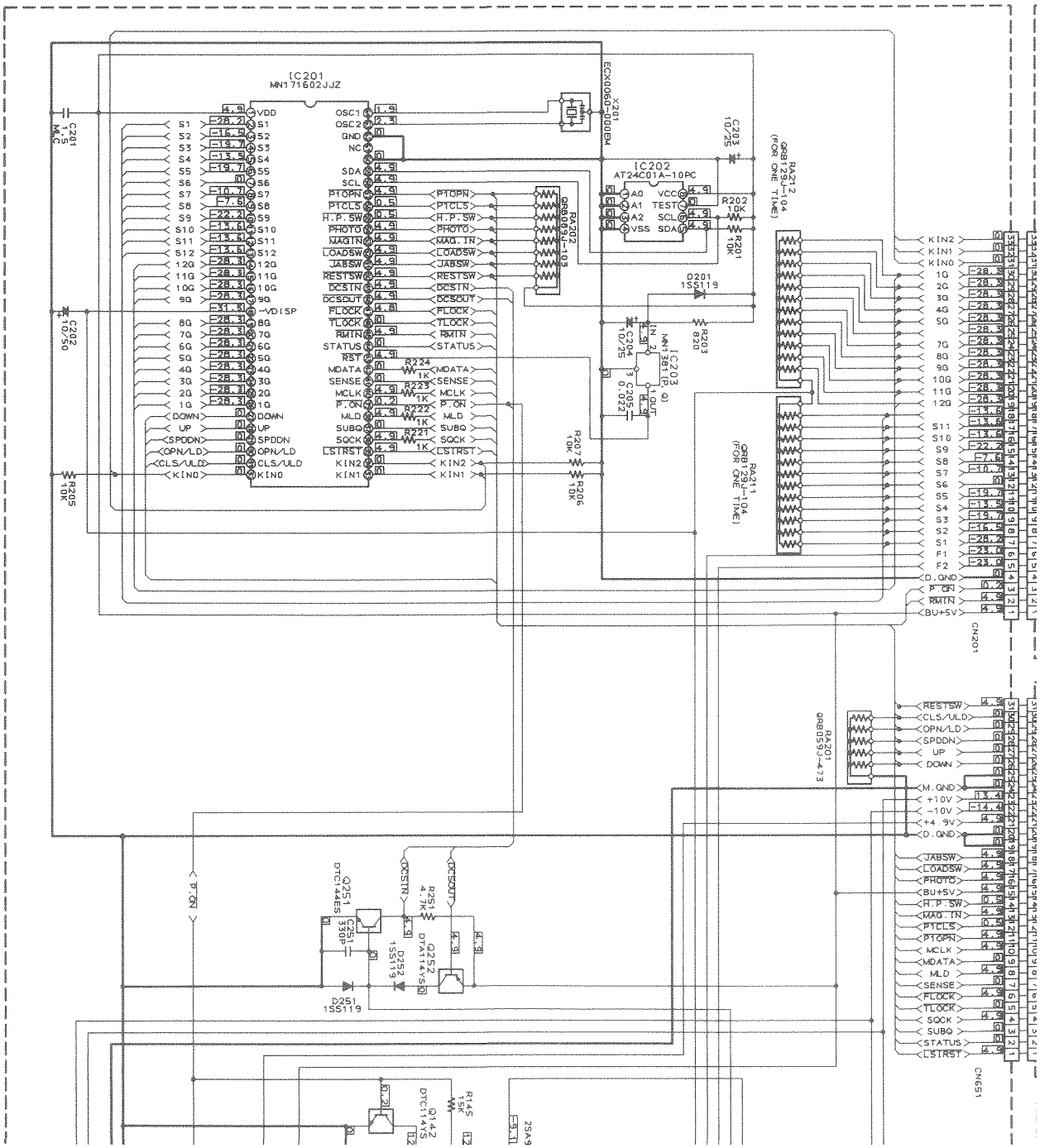
Symbol	X	Y
R615	6	B
R616	6	B
R617	6	B
R618	4	A
R641	10	B
R642	4	C
R651	3	D
R652	3	E
R653	3	E
R655	3	C
R656	3	C
R657	4	C
R658	5	C
R659	5	D
R661	4	C
R662	4	D
R670	4	E
R671	4	E
R672	4	E
R673	4	E
R701	3	B
R702	2	B

Symbol	X	Y
R752	5	D
R753	6	C
R754	6	C
R755	6	E
R756	6	E
R758	6	D
R760	6	E
R761	6	D
R762	6	E
R763	6	D
R764	6	E
R765	6	D
R766	6	E
R767	6	D
R768	6	E
R769	6	C
R772	7	E
R773	7	D
R774	7	E
R775	7	D
R776	7	E
R777	7	D

P1-33-a P1-33-b



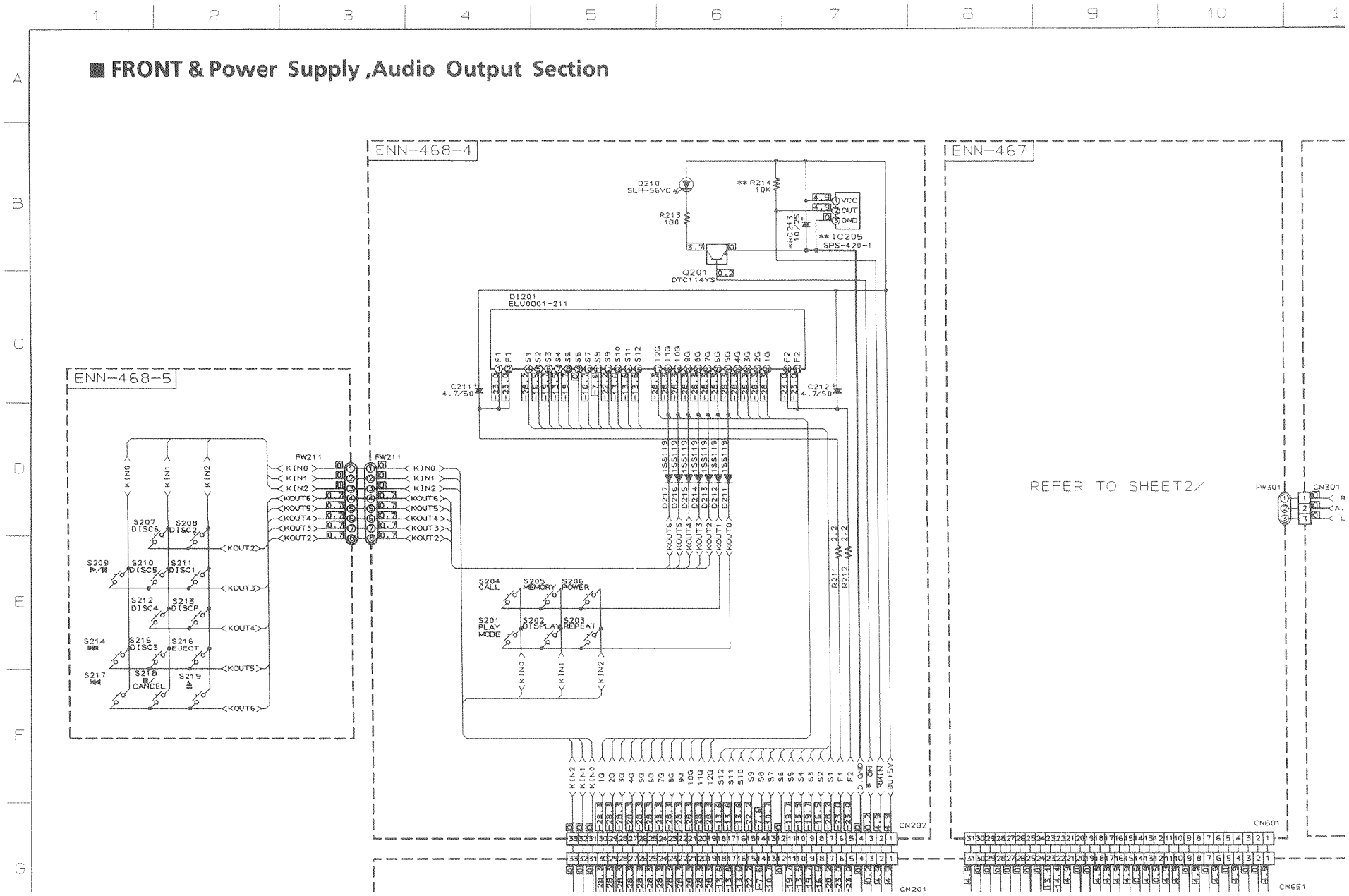
P1-33-c P1-33-d

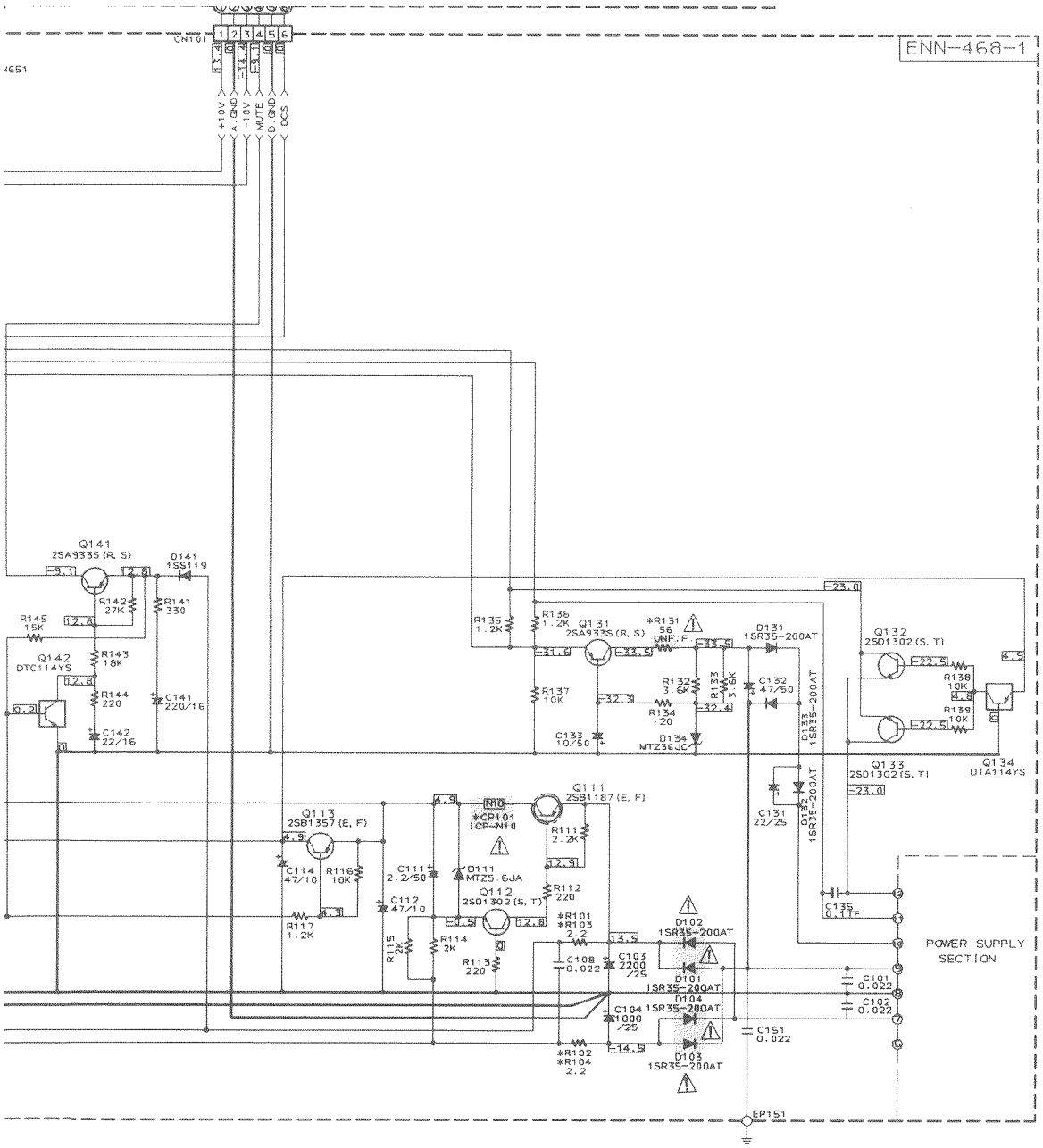

IC201
MN1716O2JJZ
IC202
AT24C01A-10PC
IC203
MN1381(P Q)
X201
ECX0GS-1000EM
D201
1SS119
D251
1SS119
D252
1SS119
Q251
DTC144ES
Q252
DTA114YS
Q142
DTC114YS
RA202
QR8059J-103
RA212
QR8123J-104
(FOR ONE TIME)
RA211
QR8123J-104
(FOR ONE TIME)
RA201
QR8059J-473
CN201
CN651
VDD
OSC1
OSC2
GND
NC
SDA
SCL
P1OPN
P1CLS
H.P.SW
PHOTO
MAGIN
LOADSW
JABSW
RESTSW
DCSTN
DCSOUT
FLOCK
TLOCK
RWIN
STATUS
RST
MDATA
SENSE
MCLK
P.ON
MLD
SUBQ
SQCK
LSTRST
KIN2
KIN1
KIN0
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
12G
11G
10G
9G
-VD(5P
8G
7G
6G
5G
4G
3G
2G
1G
DOWN
UP
SPDDN
OPN/LD
CLS/ULD
KIN0
D.GND
P.ON
RWIN
BU+5V
M.GND
+10V
-10V
+4.9V
F1
F2
R201 10K
R202 10K
R203 820
R205 10K
R206 10K
R207 10K
R221 1K
R222 1K
R223 1K
R224 1K
R254 4.7K
C201 1.5 SG
C202 10/50
C203 10/25
C204 10/25
C205 0.022
C251 330P

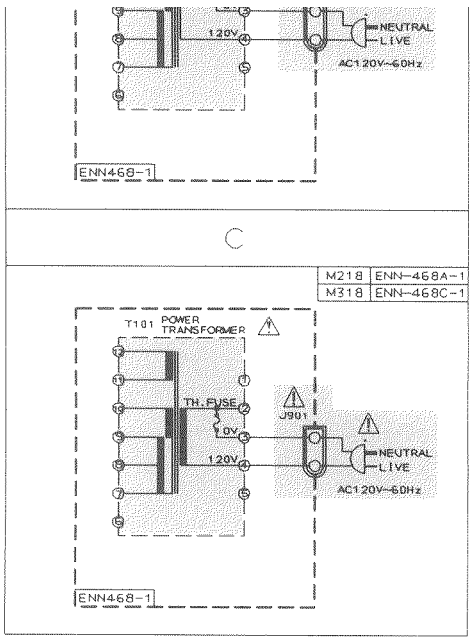
P1-33-a

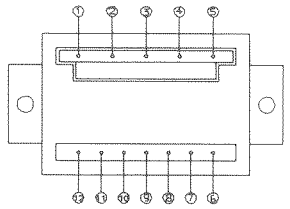
Schematic Diagrams

■ FRONT & Power Supply ,Audio Output Section



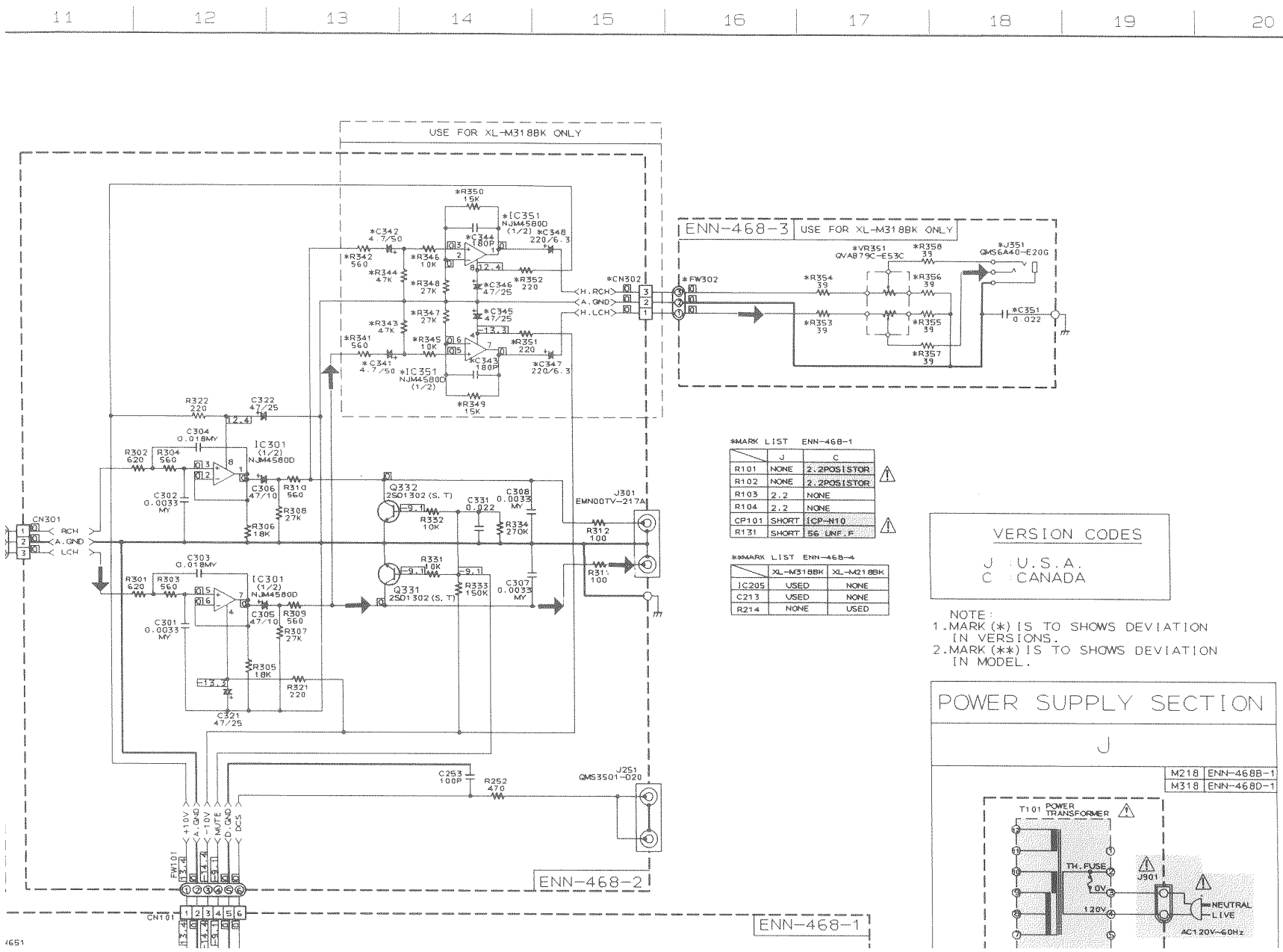






T101 POWER TRANSFORMER
(BOTTOM VIEW)

P1-33-c



*MARK LIST ENN-468-1

	J	C
R101	NONE	2.2POSISTOR
R102	NONE	2.2POSISTOR
R103	2.2	NONE
R104	2.2	NONE
CP101	SHORT	ICP-N10
R131	SHORT	56 UNF.F

**MARK LIST ENN-468-4

	XL-M318BK	XL-M218BK
IC205	USED	NONE
C213	USED	NONE
R214	NONE	USED

VERSION CODES

J : U.S.A.
C : CANADA

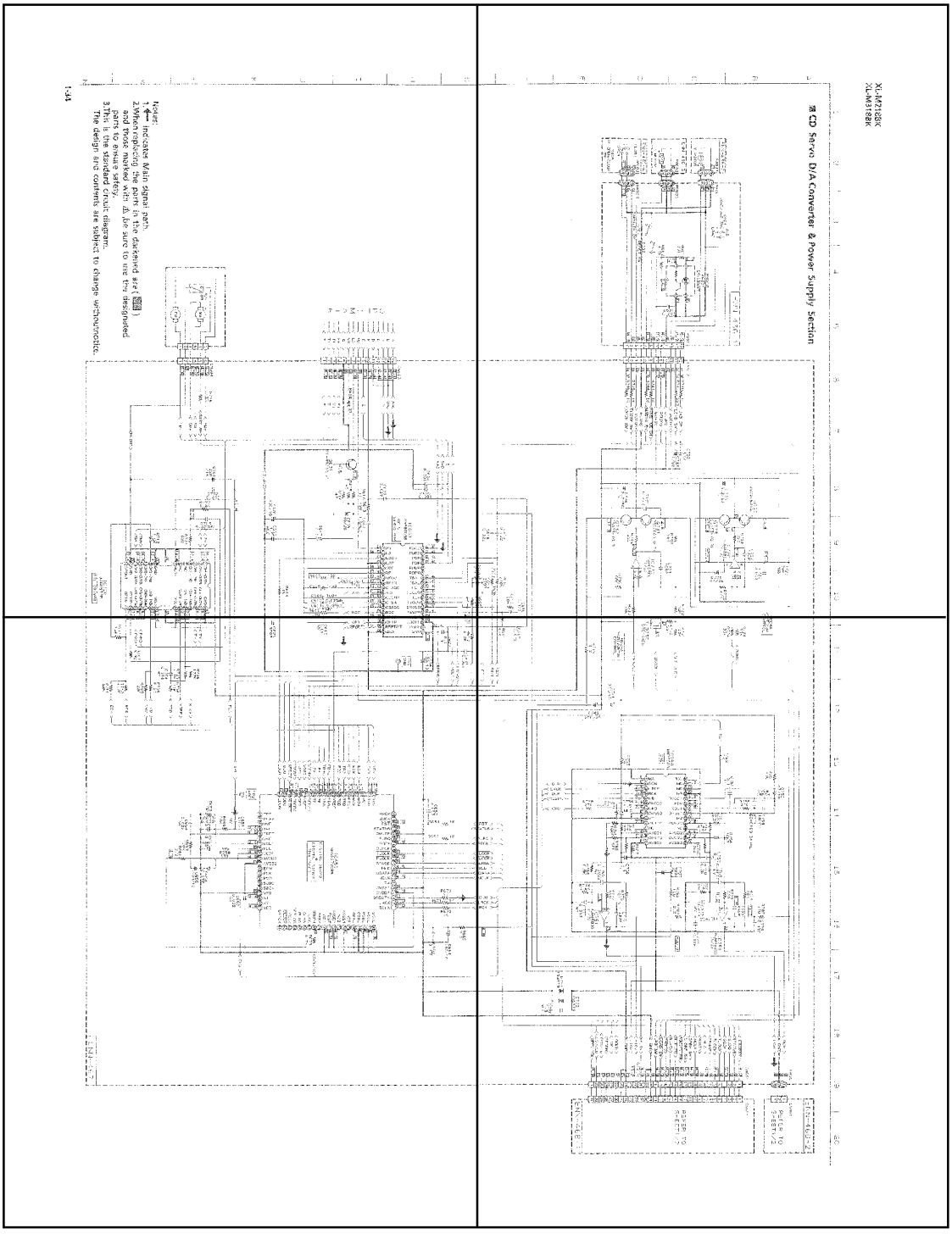
NOTE:
1. MARK (*) IS TO SHOWS DEVIATION IN VERSIONS.
2. MARK (**) IS TO SHOWS DEVIATION IN MODEL.

POWER SUPPLY SECTION

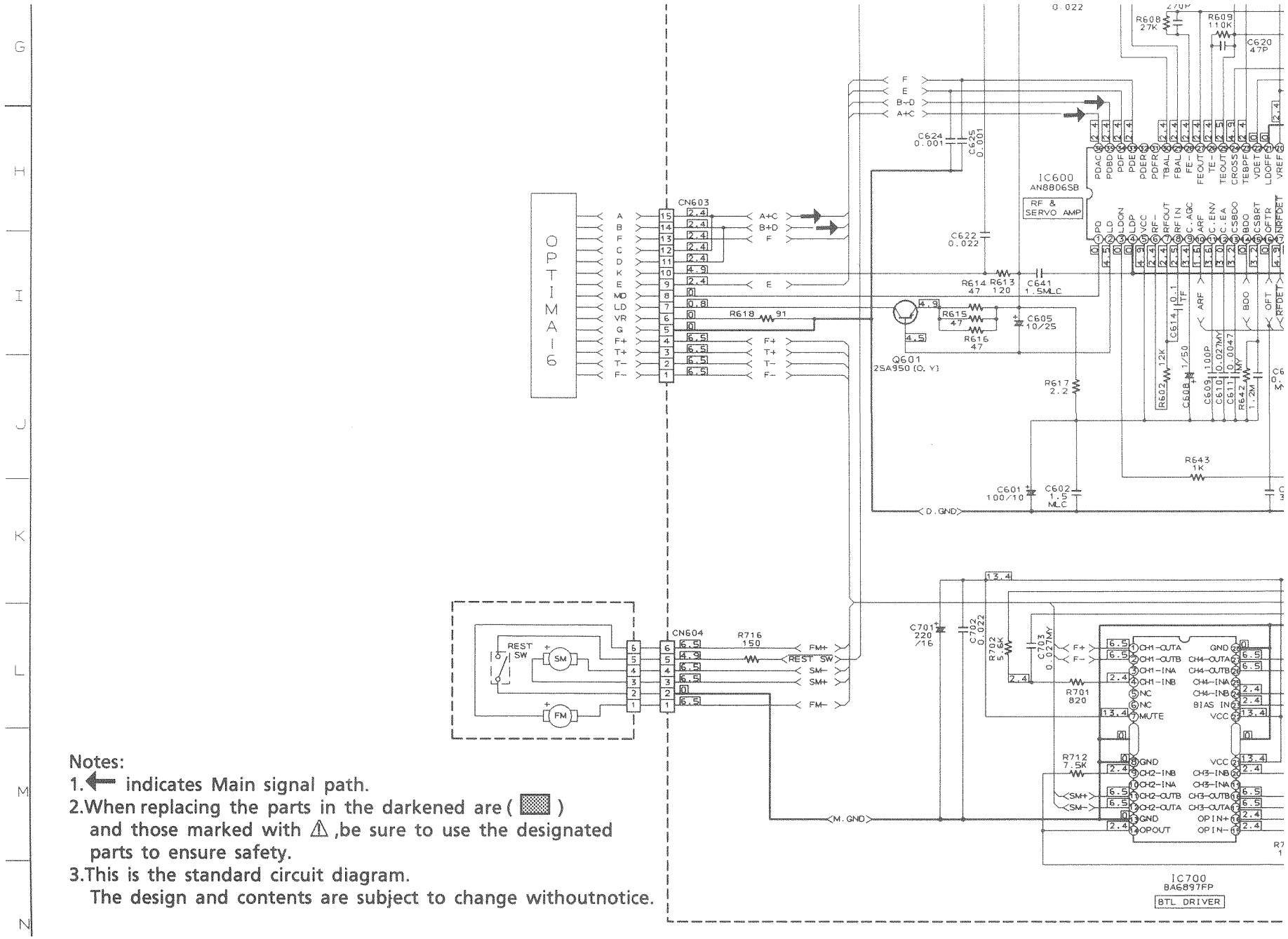
J

M218	ENN-468B-1
M318	ENN-468D-1

P1-34-a P1-34-b



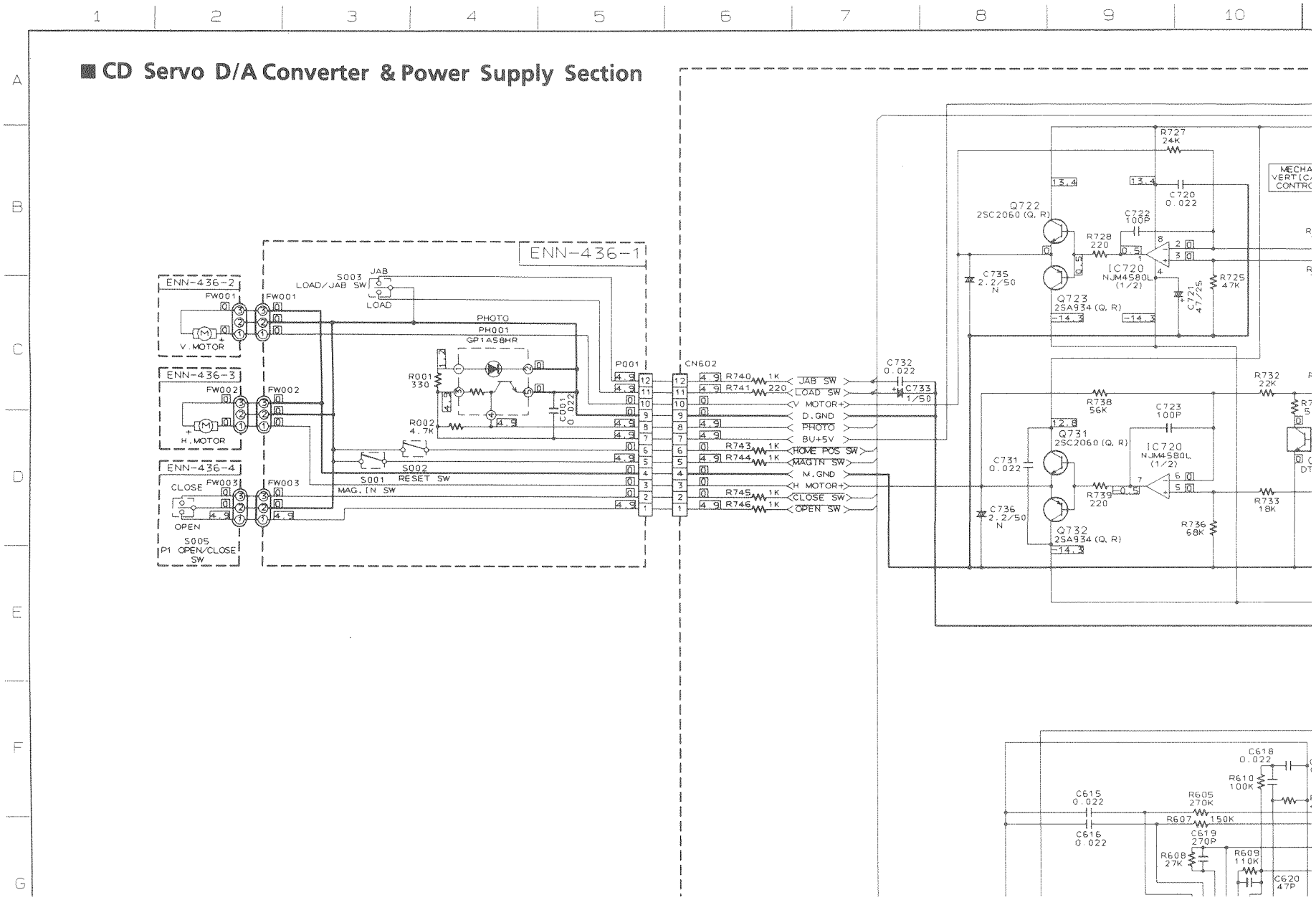
P1-34-c P1-34-d

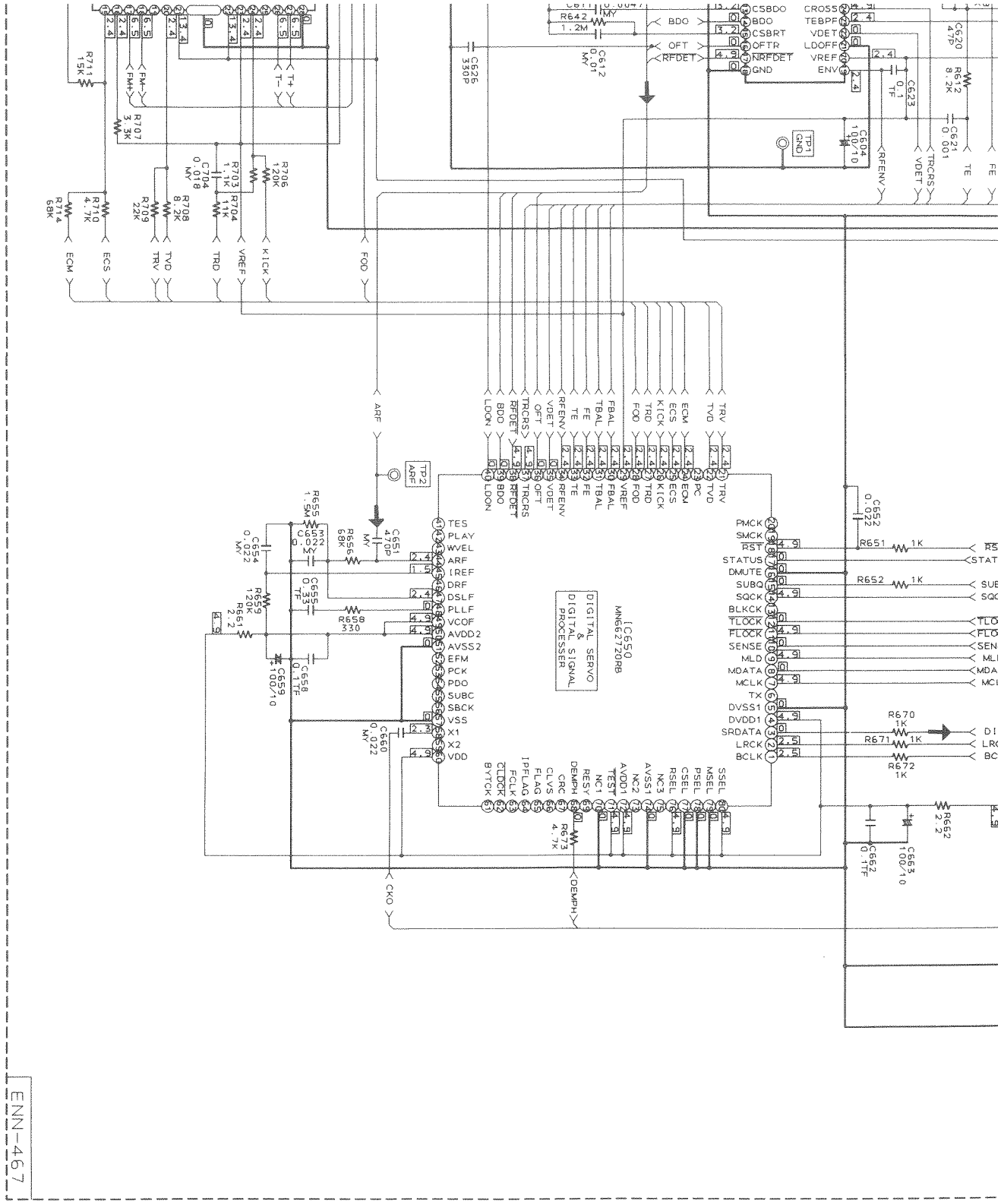


Notes:

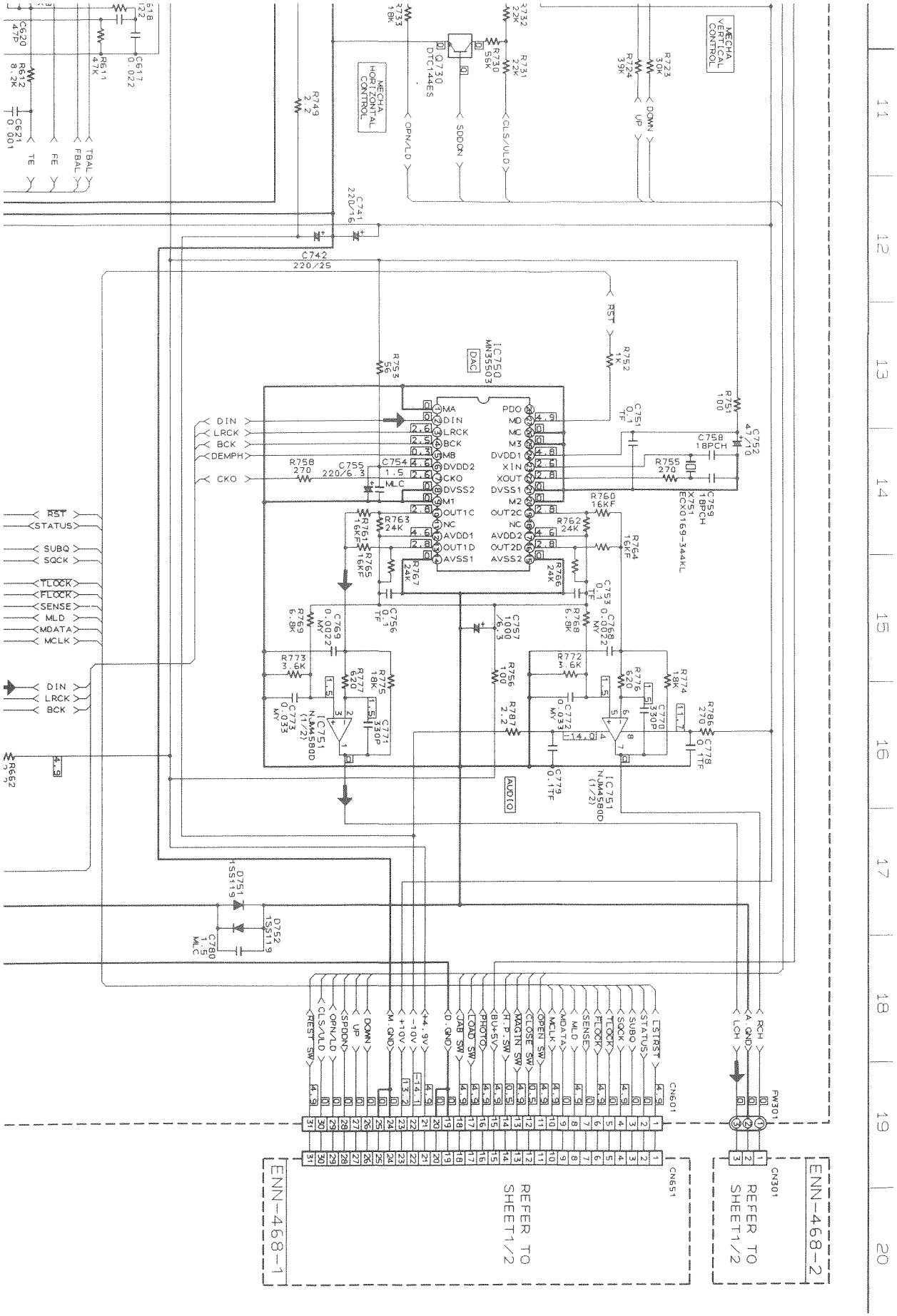
1. ← indicates Main signal path.
2. When replacing the parts in the darkened are (▩) and those marked with ⚠ ,be sure to use the designated parts to ensure safety.
3. This is the standard circuit diagram. The design and contents are subject to change withoutnotice.

■ CD Servo D/A Converter & Power Supply Section




R642 1.2M
C626 330P
C512 0.01 MY
BDO
OFT
RFDET
CSBDO
BDO
CSBRT
OFTR
NRFDET
GND
CROSS
TEBPF
VDET
LDOFF
VREF
ENV
C620 4.7P
R612 8.2K
C621 0.001
C623 0.1 TF
C604 100/10
TP1 GND
RFENV
VDET
TRCRS
TE
FE
R711 15K
R707 3.3K
FM+
FM-
T+
T-
C704 0.018 MY
R703 1.1K
R704 11K
R706 120K
R708 8.2K
R709 22K
R710 4.7K
R714 68K
ECM
ECS
TRV
TVD
TRD
VREF
KICK
FOD
ARF
TP2 ARF
LDON
BDO
RFDET
TRCRS
OFT
VDET
RFENV
TE
FE
TBAL
FBAL
VREF
FOD
TRD
KICK
ECS
ECM
TVD
TRV
R655 1.5M
C652 0.022
C654 0.022 MY
R656 68K
C651 470P MY
R659 120K
R661 2.2
C655 0.33 TF
R658 330
C659 100/10
C658 0.1TF
C660 0.022 MY
TES
PLAY
WVEL
ARF
IREF
DRF
DSLF
PLLF
VCOF
AVDD2
AVSS2
EFM
PCK
PDO
SUBC
SBCK
VSS
X1
X2
VDD
C650 MN662720RB
DIGITAL SERVO
DIGITAL & SIGNAL PROCESSER
BYTCK
CLOCK
FCLK
IPFLAG
FLAG
CLVS
CRC
DEMPH
RESY
NC1
TEST
AVDD1
NC2
AVSS1
NC3
RSEL
CSEL
PSEL
MSEL
SSEL
R673 4.7K
CKO
DEMPH
PMCK
SMCK
RST
STATUS
DMUTE
SUBQ
SQCK
BLKCK
TLOCK
FLOCK
SENSE
MLD
MDATA
MCLK
TX
DVSS1
DVDD1
SRDATA
LRCK
BCLK
C652 0.022
R651 1K
R652 1K
R670 1K
R671 1K
R672 1K
R662 2.2
C662 0.1TF
C663 100/10

ENN-467


MECHA VERTICAL CONTROL
MECHA HORIZONTAL CONTROL
IC750 MN355503
DAC
IC751 NJM4580D (1/2)
AUDIO
X751 ECX0169-344KL
CN601
CN651
CN301
FW301
REFER TO SHEET1/2
ENN-468-1
ENN-468-2
DIN
LRCK
BCK
DEMPH
CKO
RST
STATUS
SUBQ
SQCK
TLOCK
FLOCK
SENSE
MLD
MDATA
MCLK
TE
FE
TBAL
FBAL
OPN/LD
SDDON
CLS/VLD
DOWN
UP
A.GND
LCH
RCH

Parts List

* All printed circuit boards and its assemblies are not available as service parts.

The Markes for Dasignated Areas.

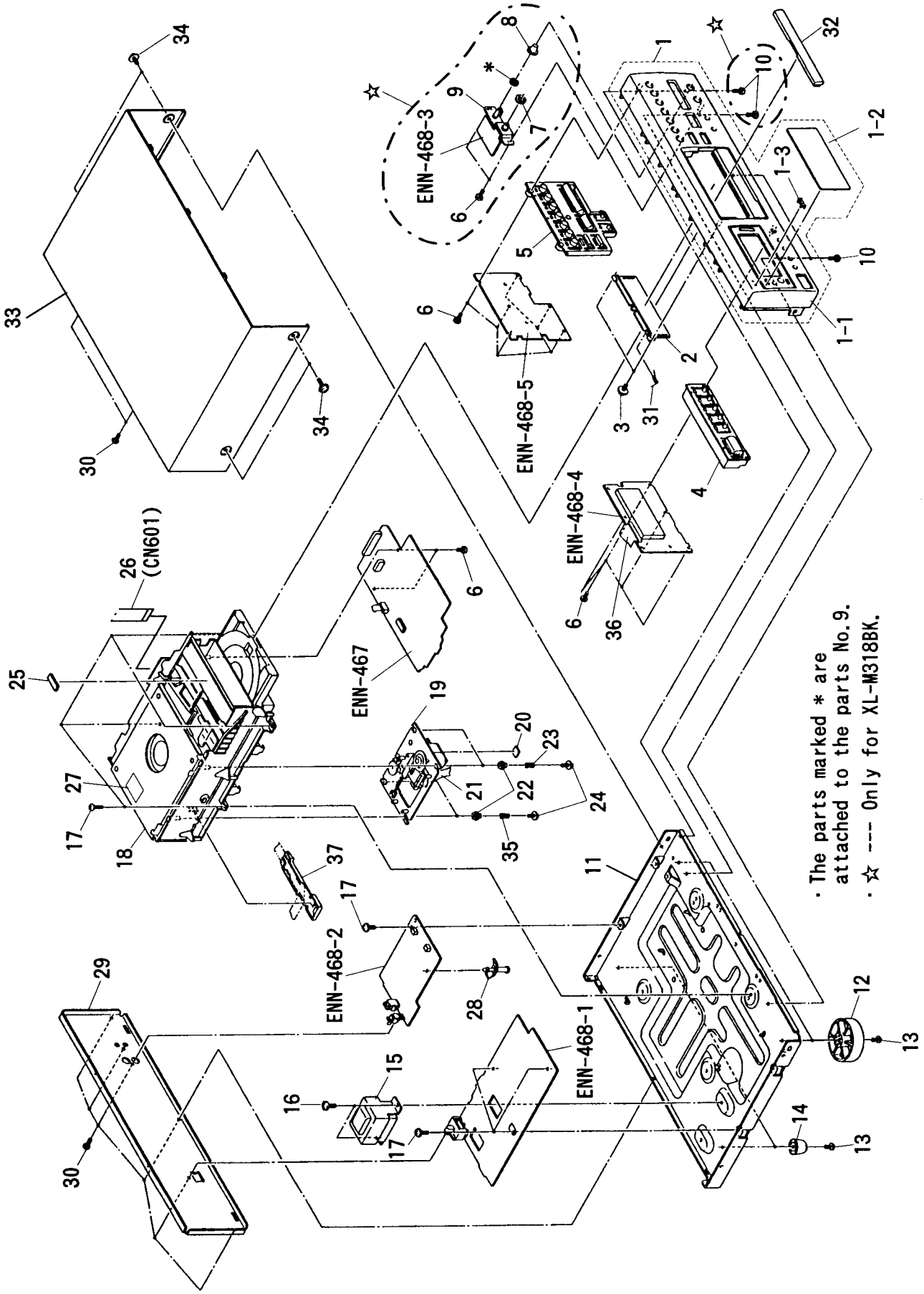
J ・・・ the U.S.A. U ・・・ Universal Type
No mark indicates all areas.

- Contens -

General Exploded View and Parts List ・・・・・・・・・・・・ 2-2
Changer Mechanism Ass'y and Parts List ・・・・・・・・・・・・ 2-4
■ Grease Point ・・・・・・・・・・・・・・・・・・・・・・・・・・ 2-4
CD Mechanism Ass'y and Parts List ・・・・・・・・・・・・・・・・ 2-6
■ Grease Point ・・・・・・・・・・・・・・・・・・・・・・・・・・ 2-7
Electrical Parts List ・・・・・・・・・・・・・・・・・・・・・・ 2-7
(ENN-467) ・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 2-7
(ENN-468) ・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 2-9
(ENN-436) ・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 2-12
Accessories List ・・・・・・・・・・・・・・・・・・・・・・・・ 2-13
Packing Materials and Part Numbers・・・・・・・・・・・・・・・・ 2-14

General Exploded View and Parts List

Block No. M1MM



■ Parts List (XL-M218BK)

Block No. M 1 M M

⚠	No.	Parts Number	Parts Name	Q'ty	Description	Area
	1	EFP-XLM218BKJ(S	FRONT PANEL ASSY			1
	1-1	E103121-002SM	FRONT PANEL	1		
	1-2	E309341-012SM	WINDOW SCREEN	1		
	1-3	VJD5429-001	JVC MARK	1		
	2	E309343-002SM	LID PLATE	1		
	3	E72405-001	SPECIAL SCREW	2		
	4	E208766-001SM	PUSH BUTTON	1	POWER	
	5	E208768-001SM	PUSH BUTTON	1	PLAY/PAUSE	
	6	SDSF2608Z	SCREW	12		
	10	SDSG3006M	TAPPING SCREW	3		
	11	E103006-003SM	CHASSIS BASE	1		
	12	VJF4039-00MSM	FOOT ASSY	2	FRONT	
	13	SBST3008Z	TAPPING SCREW	4		
	14	E47227-036	FOOT	2	REAR	
⚠	15	ETP1000-86JAJ	POWER TRANSFORMER	1		
	16	E65389-004	SPECIAL SCREW	2		
	17	GBSG3008CC	TAPPING SCREW	8		
	18	----------	CHANGER MECHANISM ASSY	1	See page 2-4	
	19	----------	CD MECHANISM ASSY	1	See page 2-6	
	20	E306805-163	SPACER	1		
	21	VWF1015-16PPA	FFC CABLE	1		
	22	E407153-001	INSULATOR	4		
	23	E408373-001	SPRING	2		
	24	E408361-001	SCREW	4		
	25	E306805-161	SPACER	1		
	26	VWF1231-38PPBV	FFC CABLE	1	CD C.B.-MAIN C.B.	
	27	E406507-001	MECHA C.LABEL	1		
	28	E406084-002	FASTENER	1	FRONT-PRIMARY	
	29	E208470-018SM	REAR PANEL	1		J
		E208470-019SM	REAR PANEL	1		C
	30	E73273-006	SPECIAL SCREW	8		
	31	E73534-001	SPRING	1		
	32	E309345-005SMKP	C.D FITTING	1		
	33	E206967-006SM	METAL COVER	1		
	34	E406308-001	SPECIAL SCREW	4		
	35	E408373-002	SPRING	2		
	36	VWF1233-16TTBW	FFC CABLE	1		
	37	E308181-221SS	FFC HOLDER	1		
	-	E307570-001	NUMBER LABEL	1		J

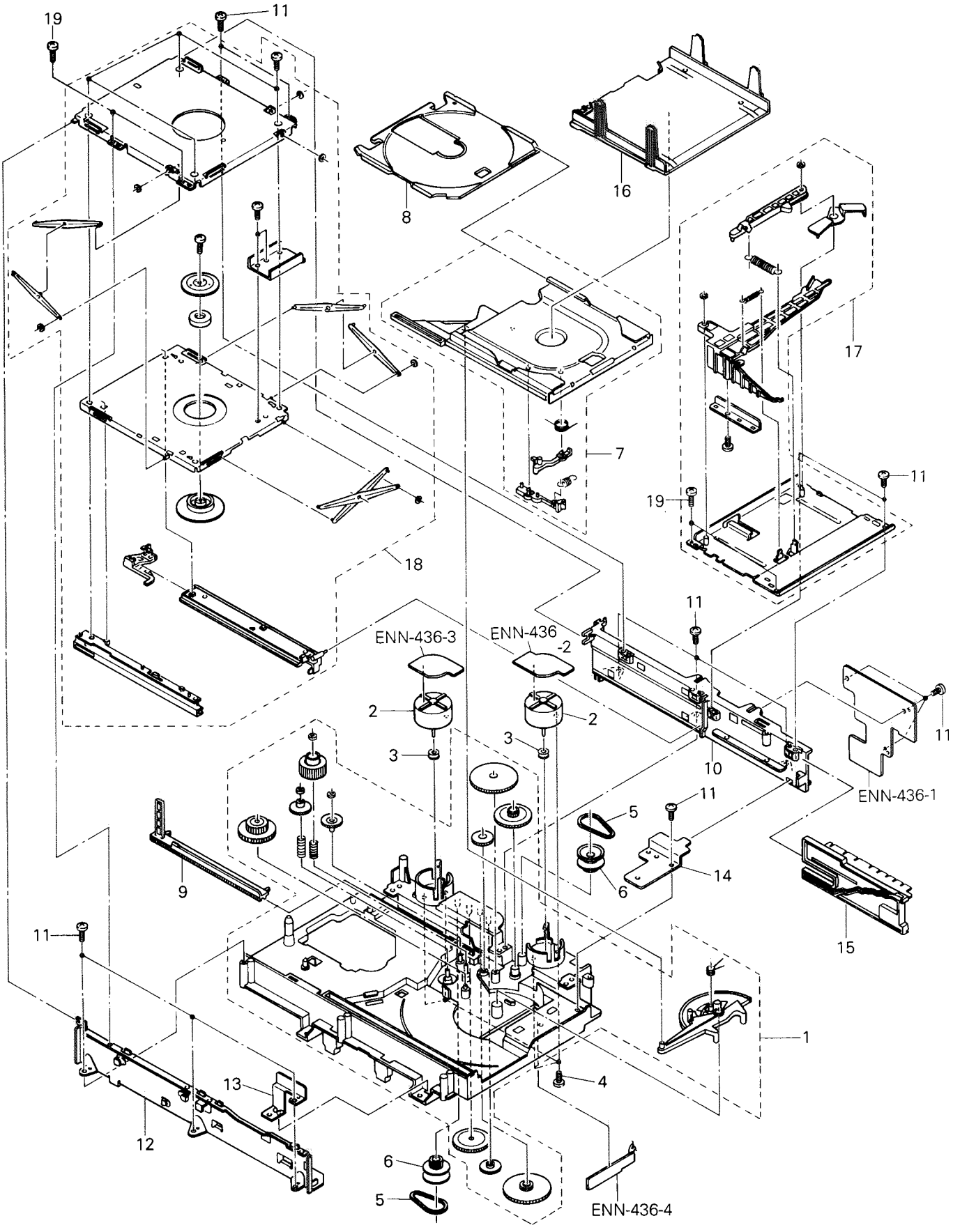
■ Parts List (XL-M318BK)

* This list describes only the difference between XL-M218BK and XL-M318BK.
Please see the parts list for XL-M218BK for parts which are not described.

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	1	EFP-XLM318BKJ(S	FRONT PANEL ASSY	1		
	1-1	E103121-001SM	FRONT PANEL	1		
	1-2	E309341-011SM	WINDOW SCREEN	1		
	6	SDSF2608Z	SCREW	14		
	7	VKZ4150-001	SPECIAL NUT	1	H.PHONE	
	8	E309097-008SS	KNOB	1	H.PHONE VOLUME	
	9	E408593-002SM	H.PHONE BKT.	1		
	29	E208470-015SM	REAR PANEL	1		J
		E208470-016SM	REAR PANEL	1		C

Changer Mechanism Ass'y and Parts List

Block No. M 2 M M



■ Parts List (Changer Mechanism Ass'y)

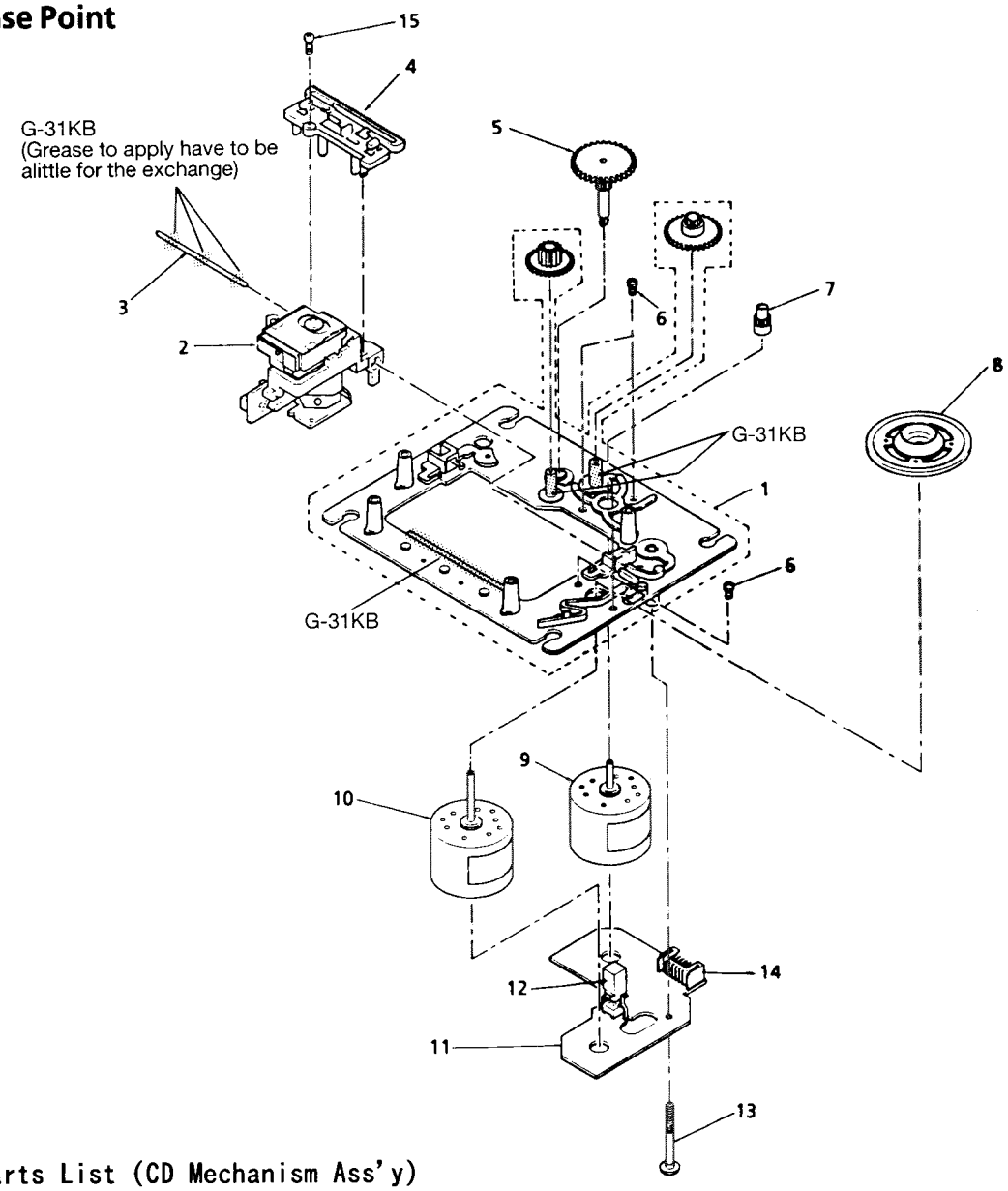
Block No. M 2 M M

	No.	Parts Number	Parts Name	Q'ty	Description	Area
	1	E208436-001SM	MECHA BASE ASSY	1		
	2	RF-500TB-14415	DC MOTOR	2		
	3	E75984-222SS	MOTOR PULLEY	2		
	4	SPSP2604Z	SCREW	4		
	5	E75950-002	REEL BELT	2		
	6	E75985-222SS	PULLEY GEAR	2		
	7	E208456-001SM	TRAY BASE ASSY	1		
	8	E26554-004	CD TRAY	1		
	9	E309148-002SM	HOOK GUIDE	1		
	10	E102925-001SM	SIDE BRACKET	1		
	11	SBSF2608Z	TAPPING SCREW	13		
	12	E208305-001SM	SIDE BRACKET	1		
	13	E408514-001SM	EARTH PLATE	1		
	14	E408517-001SM	BRACKET PLATE	1		
	15	E208303-002SM	ELEVATOR CAM	1		
	16	E208302-002SM	MAGAZIN GUIDE	1		
	17	E208458-003SM	M.GUIDE(U) ASSY	1		
	18	E102992-002SM	SCREW	2		
	19	SDST2606Z	TAPPING SCREW	4		

CD Mechanism Ass'y and Parts List

Block No. M3MM

■ Grease Point



■ Parts List (CD Mechanism Ass'y)

	No.	Parts Number	Parts Name	Q'ty	Description	Area
	1	EPB-002A	MECHA BASE ASSY	1		
	2	OPTIMA-6S	OPTICAL PICK-UP	1		
	3	E406777-001	GUIDE SHAFT	1		
	4	E307746-001	CD RACK	1		
	5	E307745-221SS	CAM GEAR	1		
	6	SDSP2003N	SCREW	4		
	7	E406750-001	PINION GEAR	1		
	8	EPB309173A	TURNTABLE	1		
	9	E406784-001	DC MOTOR	1		
	10	E406783-001	DC MOTOR	1		
	11	EMW10190-001(S)	PRINTED BOARD	1		
	12	ESB1100-005	LEAF SWITCH	1		
	13	E75832-001	SPECIAL SCREW	1		
	14	EMV5109-006B	CONNECT TERMINAL	1		
	15	SDSF2006Z	SCREW	1		

■ Electrical Parts List ENN-467 (XL-M218BK/M318BK)

⚠	No.	Parts Number	Description	Area
		I.C.S		
	IC600	AN8806SB	I.C(MONO-ANALOG)	
	IC650	MN662720RB	I.C(DIGI-MOS)	
	IC700	BA6897FPW	I.C(MONO-ANALOG)	
	IC720	NJM4580L	I.C(MONO-ANALOG)	
	IC750	MN35503	I.C(DIGI-MOS)	
	IC751	NJM4580DD	I.C(MONO-ANALOG)	
		DIODES		
	D751	1SS119	SI.DIODE	
	D752	1SS119	SI.DIODE	
		TRANSISTORS		
	Q601	2SA950(O,Y)	SI.TRANSISTOR	
	Q722	2SC2060(Q,R)	SI.TRANSISTOR	
	Q723	2SA934(Q,R)	SI.TRANSISTOR	
	Q730	DTC144ES	DIGITAL TRANSISTOR	
	Q731	2SC2060(Q,R)	SI.TRANSISTOR	
	Q732	2SA934(Q,R)	SI.TRANSISTOR	
		CAPACITORS		
	C601	QETB1AM-107	100MF 10V AL E.CAP.	
	C602	QCZ0202-155	1.5MF 25V CER.RES.	
	C604	QETB1AM-107	100MF 10V AL E.CAP.	
	C605	QER51EM-106	10MF 25V E.CAP.	
	C608	QETB1HM-105	1MF 50V AL E.CAP.	
	C609	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C610	QFLB1HJ-273	0.027MF 50V MYLAR CAP.	
	C611	QFLB1HJ-472	4700PF 50V MYLAR CAP.	
	C612	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C614	QFV81HJ-104	0.1MF 50V THIN FILM	
	C615	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C616	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C617	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C618	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C619	QCBB1HK-271Y	270PF 50V CER.CAP.	
	C620	QCSB1HJ-470	47PF 50V CER.CAP.	
	C621	QCBB1HK-102Y	1000PF 50V CER.CAP.	
	C622	QCF21HP-223A	0.022MF 50V CER.CAP.	
	C623	QFV81HJ-104	0.1MF 50V THIN FILM	
	C624	QCBB1HK-102Y	1000PF 50V CER.CAP.	
	C625	QCBB1HK-102Y	1000PF 50V CER.CAP.	
	C626	QCS31HJ-331Z	330PF 50V CER.CAP.	
	C641	QCZ0202-155	1.5MF 25V CER.RES.	
	C651	QFLB1HJ-471	470PF 50V MYLAR CAP.	
	C652	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C653	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C654	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C655	QFV81HJ-334	0.33MF 50V TF.CAP.	
	C658	QFV81HJ-104	0.1MF 50V THIN FILM	
	C659	QETB1AM-107	100MF 10V AL E.CAP.	
	C660	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C662	QFV81HJ-104	0.1MF 50V THIN FILM	
	C663	QETB1AM-107	100MF 10V AL E.CAP.	
	C700	QCS21HJ-101A	100PF 50V CER.CAP.	
	C701	QETB1CM-227	220MF 16V AL E.CAP.	

⚠	No.	Parts Number	Description	Area
	C702	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C703	QFLB1HJ-273	0.027MF 50V MYLAR CAP.	
	C704	QFLB1HJ-183	0.018MF 50V MYLAR CAP.	
	C720	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C721	QETB1EM-476	47MF 25V AL E.CAP.	
	C722	QCS21HJ-101A	100PF 50V CER.CAP.	
	C723	QCS21HJ-101A	100PF 50V CER.CAP.	
	C731	QCF21HP-223A	0.022MF 50V CER.CAP.	
	C732	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C733	QETB1HM-105	1MF 50V AL E.CAP.	
	C735	QETC1HM-225ZN	2.2MF 50V AL E.CAP.	
	C736	QETC1HM-225ZN	2.2MF 50V AL E.CAP.	
	C741	QETB1CM-227	220MF 16V AL E.CAP.	
	C742	QETB1EM-227	220MF 25V AL E.CAP.	
	C751	QFV81HJ-104	0.1MF 50V THIN FILM	
	C752	QETB1AM-476	47MF 10V E.CAP.	
	C753	QFV81HJ-104	0.1MF 50V THIN FILM	
	C754	QCZ0202-155	1.5MF 25V CER.RES.	
	C755	QETB0JM-227	220MF 6.3V E.CAP.	
	C756	QFV81HJ-104	0.1MF 50V THIN FILM	
	C757	QETB0JM-108N	1000MF 6.3V E.CAP.	
	C758	QCT30CH-180Y	18PF 50V CER.CAP.	
	C759	QCT30CH-180Y	18PF 50V CER.CAP.	
	C768	QFLB1HJ-222	2200PF 50V MYLAR CAP.	
	C769	QFLB1HJ-222	2200PF 50V MYLAR CAP.	
	C770	QCS31HJ-331Z	330PF 50V CER.CAP.	
	C771	QCS31HJ-331Z	330PF 50V CER.CAP.	
	C772	QFLB1HJ-333	0.033MF 50V MYLAR CAP.	
	C773	QFLB1HJ-333	0.033MF 50V MYLAR CAP.	
	C778	QFV81HJ-104	0.1MF 50V THIN FILM	
	C779	QFV81HJ-104	0.1MF 50V THIN FILM	
	C780	QCZ0202-155	1.5MF 25V CER.RES.	
		RESISTORS		
	R602	QRD161J-123	12K 1/6W CARBON RE	
	R605	QRD161J-274	270K 1/6W CARBON RE	
	R607	QRD167J-154	150K 1/6W CARBON RE	
	R608	QRD161J-273	27K 1/6W CARBON RE	
	R609	QRD161J-114	110K 1/6W CARBON RE	
	R610	QRD161J-104	100K 1/6W CARBON RE	
	R611	QRD161J-473	47K 1/6W CARBON RE	
	R612	QRD167J-822	8.2K 1/6W CARBON RE	
	R613	QRD167J-121	120 1/6W CARBON RE	
	R614	QRD161J-470	47 1/6W CARBON RE	
	R615	QRD161J-470	47 1/6W CARBON RE	
	R616	QRD161J-470	47 1/6W CARBON RE	
	R617	QRD161J-2R2	2.2 1/6W CARBON RE	
	R618	QRD161J-910Y	91 1/6W CARBON RE	
	R641	QRD161J-102	1K 1/6W CARBON RE	
	R642	QRD161J-125	1.2M 1/6W CARBON RE	
	R643	QRD161J-102	1K 1/6W CARBON RE	
	R651	QRD161J-102	1K 1/6W CARBON RE	
	R652	QRD161J-102	1K 1/6W CARBON RE	
	R655	QRD167J-155	1.5M 1/6W CARBON RE	

■ Electrical Parts List ENN-467 (XL-M218BK/M318BK)

⚠	No.	Parts Number	Description	Area
	R656	QRD161J-683	68K 1/6W CARBON RE	
	R658	QRD161J-331	330 1/6W CARBON RE	
	R659	QRD161J-124	120K 1/6W CARBON RE	
	R661	QRD161J-2R2	2.2 1/6W CARBON RE	
	R662	QRD161J-2R2	2.2 1/6W CARBON RE	
	R670	QRD161J-102	1K 1/6W CARBON RE	
	R671	QRD161J-102	1K 1/6W CARBON RE	
	R672	QRD161J-102	1K 1/6W CARBON RE	
	R673	QRD161J-472	4.7K 1/6W CARBON RE	
	R701	QRD161J-821	820 1/6W CARBON RE	
	R702	QRD167J-562	5.6K 1/6W CARBON RE	
	R703	QRD161J-112	1.1K 1/6W CARBON RE	
	R704	QRD167J-113	11K 1/6W CARBON RE	
	R706	QRD161J-124	120K 1/6W CARBON RE	
	R707	QRD167J-332	3.3K 1/6W CARBON RE	
	R708	QRD167J-822	8.2K 1/6W CARBON RE	
	R709	QRD167J-223	22K 1/6W CARBON RE	
	R710	QRD161J-472	4.7K 1/6W CARBON RE	
	R711	QRD167J-153	15K 1/6W CARBON RE	
	R712	QRD161J-752	7.5K 1/6W CARBON RE	
	R714	QRD161J-363	36K 1/6W CARBON RE	
	R716	QRD167J-151	150 1/6W CARBON RE	
	R723	QRD161J-303Y	30K 1/6W CARBON RE	
	R724	QRD161J-393	39K 1/6W CARBON RE	
	R725	QRD161J-473	47K 1/6W CARBON RE	
	R727	QRD161J-243	24K 1/6W CARBON RE	
	R728	QRD161J-221	220 1/6W CARBON RE	
	R730	QRD161J-563	56K 1/6W CARBON RE	
	R731	QRD167J-223	22K 1/6W CARBON RE	
	R732	QRD167J-223	22K 1/6W CARBON RE	
	R733	QRD161J-183	18K 1/6W CARBON RE	
	R736	QRD161J-683	68K 1/6W CARBON RE	
	R738	QRD161J-563	56K 1/6W CARBON RE	
	R739	QRD161J-221	220 1/6W CARBON RE	
	R740	QRD161J-102	1K 1/6W CARBON RE	
	R741	QRD161J-221	220 1/6W CARBON RE	
	R743	QRD161J-102	1K 1/6W CARBON RE	
	R744	QRD161J-102	1K 1/6W CARBON RE	
	R745	QRD161J-102	1K 1/6W CARBON RE	
	R746	QRD161J-102	1K 1/6W CARBON RE	
	R749	QRD161J-2R2	2.2 1/6W CARBON RE	
	R751	QRD161J-101	100 1/6W CARBON RE	
	R752	QRD161J-102	1K 1/6W CARBON RE	
	R753	QRD167J-560	56 1/6W CARBON RE	
	R755	QRD161J-271	270 1/6W CARBON RE	
	R756	QRD161J-101	100 1/6W CARBON RE	
	R758	QRD161J-271	270 1/6W CARBON RE	
⚠	R760	QRV144F-1602	16K 1/4W CONST.META	
⚠	R761	QRV144F-1602	16K 1/4W CONST.META	
	R762	QRD161J-243	24K 1/6W CARBON RE	
	R763	QRD161J-243	24K 1/6W CARBON RE	
⚠	R764	QRV144F-1602	16K 1/4W CONST.META	
⚠	R765	QRV144F-1602	16K 1/4W CONST.META	

⚠	No.	Parts Number	Description	Area
	R766	QRD161J-243	24K 1/6W CARBON RE	
	R767	QRD161J-243	24K 1/6W CARBON RE	
	R768	QRD167J-682	6.8K 1/6W CARBON RE	
	R769	QRD167J-682	6.8K 1/6W CARBON RE	
	R772	QRD161J-362	3.6K 1/6W CARBON RE	
	R773	QRD161J-362	3.6K 1/6W CARBON RE	
	R774	QRD161J-183	18K 1/6W CARBON RE	
	R775	QRD161J-183	18K 1/6W CARBON RE	
	R776	QRD161J-621	620 1/6W CARBON RE	
	R777	QRD161J-621	620 1/6W CARBON RE	
	R786	QRD161J-271	270 1/6W CARBON RE	
	R787	QRD161J-2R2	2.2 1/6W CARBON RE	
		OTHERS		
		EMW10499-201	PRINTED BOARD	
	X751	ECX0169-344KL	CRYSTAL	
	CN601	VMC0163-031	FFC SOCKET	
	CN602	VMC0314-S12	CONNECT TERMINAL	
	CN603	EMV7170-115R	CONNECT TERMINAL	
	CN604	EWS266-A408J	FLAT WIRE ASSY	
	FS700	E3400-431	FELT SPACER	
	FW301	EWR33D-16LS	FLAT WIRE ASSY	
	SP600	VYH7653-002	I.C.SOCKET	
	SP650	VYH7653-002	I.C.SOCKET	
	SP700	VYH7653-002	I.C.SOCKET	
	SP750	VYH7653-002	I.C.SOCKET	

■ Electrical Parts List ENN-468 (XL-M218BK)

⚠	No.	Parts Number	Description	Area
		I.C.S		
	IC201	MN171602JJZ	I.C(MICRO-COMPUTER)	
	IC202	AT24C01A-10PC	I.C(EP-ROM)	
	IC203	MN1381(P,Q)TA	I.C(DIGI-MOS)	
	IC301	NJM4580DD	I.C(MONO-ANALOG)	
		DIODES		
	D101	1SR35-200A	SI.DIODE	
	D102	1SR35-200A	SI.DIODE	
	D103	1SR35-200A	SI.DIODE	
	D104	1SR35-200A	SI.DIODE	
	D111	MTZ5.6JA	ZENER DIODE	
	D131	1SR35-200A	SI.DIODE	
	D132	1SR35-200A	SI.DIODE	
	D133	1SR35-200A	SI.DIODE	
	D134	MTZ36JC	ZENER DIODE	
	D141	1SS119	SI.DIODE	
	D201	1SS119	SI.DIODE	
	D210	SLH-56VC50F130	L.E.D.	
	D211	1SS119	SI.DIODE	
	D212	1SS119	SI.DIODE	
	D213	1SS119	SI.DIODE	
	D214	1SS119	SI.DIODE	
	D215	1SS119	SI.DIODE	
	D216	1SS119	SI.DIODE	
	D217	1SS119	SI.DIODE	
	D251	1SS119	SI.DIODE	
	D252	1SS119	SI.DIODE	
		TRANSISTORS		
	Q111	2SB1187(F,G)	SI.TRANSISTOR	
	Q112	2SD1302	SI.TRANSISTOR	
	Q113	2SB1357(E,F)	SI.TRANSISTOR	
	Q131	2SA933S(RS)	SI.TRANSISTOR	
	Q132	2SD1302	SI.TRANSISTOR	
	Q133	2SD1302	SI.TRANSISTOR	
	Q134	DTA114YS	DIGITAL TRANSISTOR	
	Q141	2SA933S(RS)	SI.TRANSISTOR	
	Q142	DTC114YS	DIGITAL TRANSISTOR	
	Q201	DTC114YS	DIGITAL TRANSISTOR	
	Q251	DTC144ES	DIGITAL TRANSISTOR	
	Q252	DTA114YS	DIGITAL TRANSISTOR	
	Q331	2SD1302	SI.TRANSISTOR	
	Q332	2SD1302	SI.TRANSISTOR	
		CAPACITORS		
	C101	QCF21HP-223A	0.022MF 50V CER.CAP.	
	C102	QCF21HP-223A	0.022MF 50V CER.CAP.	
	C103	QETB1EM-228	2200MF 25V E.CAP.	
	C104	QETB1EM-108	1000MF 25V AL E.CAP.	
	C108	QCF21HP-223A	0.022MF 50V CER.CAP.	
	C111	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C112	QETB1AM-476	47MF 10V E.CAP.	
	C114	QETB1AM-476	47MF 10V E.CAP.	
	C131	QETB1HM-226E	22MF 50V E.CAP.	
	C132	QETB1JM-476	47MF 63V AL E.CAP.	

⚠	No.	Parts Number	Description	Area
	C133	QETB1HM-106	10MF 50V E.CAP.	
	C135	QFV81HJ-104	0.1MF 50V THIN FILM	
	C141	QETB1CM-227	220MF 16V AL E.CAP.	
	C142	QETB1CM-226	22MF 16V E.CAP.	
	C151	QCF21HP-223A	0.022MF 50V CER.CAP.	
	C201	QCZ0202-155	1.5MF 25V CER.RES.	
	C202	QETB1HM-106	10MF 50V E.CAP.	
	C203	QETB1EM-106	10MF 25V AL E.CAP.	
	C204	QETB1EM-106	10MF 25V AL E.CAP.	
	C205	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C211	QETB1HM-475E	4.7MF 50V E.CAP.	
	C212	QETB1HM-475E	4.7MF 50V E.CAP.	
	C251	QCBB1HK-331Y	330PF 50V CER.CAP.	
	C254	QCF21HP-223A	0.022MF 50V CER.CAP.	
	C255	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C256	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C301	QFLB1HJ-332	3300PF 50V MYLAR CAP.	
	C302	QFLB1HJ-332	3300PF 50V MYLAR CAP.	
	C303	QFLB1HJ-183	0.018MF 50V MYLAR CAP.	
	C304	QFLB1HJ-183	0.018MF 50V MYLAR CAP.	
	C305	QETB1AM-476	47MF 10V E.CAP.	
	C306	QETB1AM-476	47MF 10V E.CAP.	
	C307	QFLB1HJ-332	3300PF 50V MYLAR CAP.	
	C308	QFLB1HJ-332	3300PF 50V MYLAR CAP.	
	C321	QETB1EM-476	47MF 25V AL E.CAP.	
	C322	QETB1EM-476	47MF 25V AL E.CAP.	
	C331	QCHB1EZ-223	0.022MF 25V CER.CAP.	
		RESISTORS		
⚠	R101	PTH61G30BD2R2N	FUSIBLE RE	C
⚠	R102	PTH61G30BD2R2N	FUSIBLE RE	C
	R103	QRD161J-2R2	2.2 1/6W CARBON RE	J
	R104	QRD161J-2R2	2.2 1/6W CARBON RE	J
	R111	QRD161J-222	2.2K 1/6W CARBON RE	
	R112	QRD161J-221	220 1/6W CARBON RE	
	R113	QRD161J-221	220 1/6W CARBON RE	
	R114	QRD161J-202	2K 1/6W CARBON RE	
	R115	QRD161J-202	2K 1/6W CARBON RE	
	R116	QRD161J-103	10K 1/6W CARBON RE	
	R117	QRD161J-122	1.2K 1/6W CARBON RE	
⚠	R131	QRZ0077-560	56 1/4W FUSIBLE RE	C
	R132	QRD161J-362	3.6K 1/6W CARBON RE	
	R133	QRD161J-362	3.6K 1/6W CARBON RE	
	R134	QRD167J-121	120 1/6W CARBON RE	
	R135	QRD161J-122	1.2K 1/6W CARBON RE	
	R136	QRD161J-122	1.2K 1/6W CARBON RE	
	R137	QRD161J-103	10K 1/6W CARBON RE	
	R138	QRD161J-103	10K 1/6W CARBON RE	
	R139	QRD161J-103	10K 1/6W CARBON RE	
	R141	QRD161J-331	330 1/6W CARBON RE	
	R142	QRD161J-123	12K 1/6W CARBON RE	
	R143	QRD161J-333	33K 1/6W CARBON RE	
	R144	QRD161J-221	220 1/6W CARBON RE	
	R145	QRD167J-153	15K 1/6W CARBON RE	

■ Electrical Parts List ENN-468 (XL-M218BK)

⚠	No.	Parts Number	Description	Area
	R201	QRD161J-103	10K 1/6W CARBON RE	
	R202	QRD161J-103	10K 1/6W CARBON RE	
	R203	QRD161J-821	820 1/6W CARBON RE	
	R205	QRD161J-103	10K 1/6W CARBON RE	
	R206	QRD161J-103	10K 1/6W CARBON RE	
	R207	QRD161J-103	10K 1/6W CARBON RE	
	R211	QRD161J-2R2	2.2 1/6W CARBON RE	
	R212	QRD161J-2R2	2.2 1/6W CARBON RE	
	R213	QRD161J-181	180 1/6W CARBON RE	
	R214	QRD161J-103	10K 1/6W CARBON RE	
	R221	QRD161J-102	1K 1/6W CARBON RE	
	R222	QRD161J-102	1K 1/6W CARBON RE	
	R223	QRD161J-102	1K 1/6W CARBON RE	
	R224	QRD161J-102	1K 1/6W CARBON RE	
	R251	QRD161J-472	4.7K 1/6W CARBON RE	
	R252	QRD161J-471	470 1/6W CARBON RE	
	R301	QRD161J-621	620 1/6W CARBON RE	
	R302	QRD161J-621	620 1/6W CARBON RE	
	R303	QRD161J-561	560 1/6W CARBON RE	
	R304	QRD161J-561	560 1/6W CARBON RE	
	R305	QRD161J-183	18K 1/6W CARBON RE	
	R306	QRD161J-183	18K 1/6W CARBON RE	
	R307	QRD161J-273	27K 1/6W CARBON RE	
	R308	QRD161J-273	27K 1/6W CARBON RE	
	R309	QRD161J-561	560 1/6W CARBON RE	
	R310	QRD161J-561	560 1/6W CARBON RE	
	R311	QRD161J-101	100 1/6W CARBON RE	
	R312	QRD161J-101	100 1/6W CARBON RE	
	R321	QRD161J-221	220 1/6W CARBON RE	
	R322	QRD161J-221	220 1/6W CARBON RE	
	R331	QRD161J-103	10K 1/6W CARBON RE	
	R332	QRD161J-103	10K 1/6W CARBON RE	
	R333	QRD167J-154	150K 1/6W CARBON RE	
	R334	QRD161J-274	270K 1/6W CARBON RE	
	RA201	QRB059J-473	47K 1/10WRES. ARR	
	RA202	QRB089J-103	10K 1/10WNETWORK RE	
		OTHERS		
		EMW10601-002	PRINTED BOARD	
		E70306-001	HEAT SINK	
		SBSG3008Z	TAPPING SCREW	
	J101	QMCB001-E03H	AC INLET	
	J251	QMS3501-020	PIN JACK	
	J301	EMN00TV-217A	PIN JACK	
	S201	QSQ1001-E01ZJ7	PUSH SWITCH	
	S202	QSQ1001-E01ZJ7	PUSH SWITCH	
	S203	QSQ1001-E01ZJ7	PUSH SWITCH	
	S204	QSQ1001-E01ZJ7	PUSH SWITCH	
	S205	QSQ1001-E01ZJ7	PUSH SWITCH	
	S206	QSQ1001-E01ZJ7	PUSH SWITCH	
	S207	QSQ1001-E01ZJ7	PUSH SWITCH	
	S208	QSQ1001-E01ZJ7	PUSH SWITCH	
	S209	QSQ1001-E01ZJ7	PUSH SWITCH	
	S210	QSQ1001-E01ZJ7	PUSH SWITCH	

⚠	No.	Parts Number	Description	Area
	S211	QSQ1001-E01ZJ7	PUSH SWITCH	
	S212	QSQ1001-E01ZJ7	PUSH SWITCH	
	S213	QSQ1001-E01ZJ7	PUSH SWITCH	
	S214	QSQ1001-E01ZJ7	PUSH SWITCH	
	S215	QSQ1001-E01ZJ7	PUSH SWITCH	
	S216	QSQ1001-E01ZJ7	PUSH SWITCH	
	S217	QSQ1001-E01ZJ7	PUSH SWITCH	
	S218	QSQ1001-E01ZJ7	PUSH SWITCH	
	S219	QSQ1001-E01ZJ7	PUSH SWITCH	
	X201	ECX0060-000EM	CERAMIC RESONATOR	
	CN201	VMC0163-033	CONNECT TERMINAL	
	CN202	VMC0163-R33	CONNECT TERMINAL	
	CN301	EMV7145-003Z	SOCKET ASSY	
	CN651	VMC0163-031	FFC SOCKET	
⚠	CP101	ICP-N10	I.C.PROTECTOR	C
	DI201	ELU0001-211	FLUORESCENT DISPLAY TUB	
	EP151	EMZ4002-001Z	EARTH PLATE	
	FH201	E75819-001	SUPPORT HOLDER	
	FH202	E75820-001	SUPPORT HOLDER	
	FS201	E3400-439	FELT SPACER	
	FS202	E3400-439	FELT SPACER	
	FW101	EWR36D-40LS	FLAT WIRE ASSY	
	FW211	EWR38D-18SS	FLAT WIRE ASSY	
	JT101	EMV7145-003Z	SOCKET ASSY	
	JT102	EMV7145-003Z	SOCKET ASSY	

■ Electrical Parts List ENN-468 (XL-M318BK)

* **This list describes only the difference between XL-M218BK and XL-M318BK.**
Please see the parts list for XL-M218BK for parts which are not described.

	No.	Parts Number	Description	Area
		I.C.S		
	IC201	MN17P1602-SDP	I.C(MICRO-COMPUTER)	
	IC205	SPS-420-1	RM RECIVER	
	IC351	NJM4580D	I.C	
		CAPACITORS		
	C213	QETC1EM-106Z	10MF 50V CER.CAPACIT	
	C253	QCS31HJ-101Z	100PF 50V CER.CAPACI	
	C341	QETC1HM-475Z	4.7MF 50V CER.CAPACI	
	C342	QETC1HM-475Z	4.7MF 50V CER.CAPACI	
	C343	QCBB1HK-181Y	180PF 50V CER.CAPACI	
	C344	QCBB1HK-181Y	180PF 50V CER.CAPACI	
	C345	QETB1EM-476	47MF 25V CER.CAPACIT	
	C346	QETB1EM-476	47MF 25V CER.CAPACIT	
	C347	QETC0JM-227	220MF 6.3V CER.CAPAC	
	C348	QETC0JM-227	220MF 6.3V CER.CAPAC	
	C351	QCHB1EZ-223Y	0.022MF 25V CER.CAPA	
		RESISTORS		
	R142	QRD161J-273	27K 1/6W CARBON RES	
	R341	QRD161J-561	560 1/6W CARBON RES	
	R342	QRD161J-561	560 1/6W CARBON RES	
	R343	QRD161J-473	47K 1/6W CARBON RES	
	R344	QRD161J-473	47K 1/6W CARBON RES	
	R345	QRD161J-103	10K 1/6W CARBON RES	
	R346	QRD161J-103	10K 1/6W CARBON RES	
	R347	QRD161J-273	27K 1/6W CARBON RES	
	R348	QRD161J-273	27K 1/6W CARBON RES	
	R349	QRD161J-153	15K 1/6W CARBON RES	
	R350	QRD161J-153	15K 1/6W CARBON RES	
	R351	QRD161J-221	220 1/6W CARBON RES	
	R352	QRD161J-221	220 1/6W CARBON RES	
	R353	QRD161J-390	39 1/6W CARBON RESI	
	R354	QRD161J-390	39 1/6W CARBON RESI	
	R355	QRD161J-390	39 1/6W CARBON RESI	
	R356	QRD161J-390	39 1/6W CARBON RESI	
	R357	QRD161J-390	39 1/6W CARBON RESI	
	R358	QRD161J-390	39 1/6W CARBON RESI	
	RA211	QRB129J-104	100K 1/10WNETWORK RE	
	RA212	QRB129J-104	100K 1/10WNETWORK RE	
	VR351	QVAB79C-E53CJ5	V.RESISTOR	
		OTHERS		
	CN301	EMV7122-103	CONNECT TERMINAL	
	CN202	VMC0163-R33	CONNECTOR	
	CN302	EMV7145-003Z	SOCKET I.M.	
	FW101	EWR36D-40LS	FLAT WIRE	
	FW302	EWR33D-20LS	FLAT WIRE	
	J351	QMS6A40-E20G	JACK	
	JT101	EMV7122-103	CONNECT TERMINAL	
	JT102	EMV7122-103	CONNECT TERMINAL	

■ Electrical Parts List ENN-436 (XL-M218BK/M318BK)

⚠	No.	Parts Number	Description	Area
		CAPACITORS		
	C001	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
		RESISTORS		
	R001	QRD161J-331	330 1/6W CARBON RES	
	R002	QRD161J-472	4.7K 1/6W CARBON RES	
		OTHERS		
		EMW10510-001	CIR.BOARD	
	P001	EMV5132-012R	CONNECT TERMINAL	
	S001	QSEC001-E03	LEVER SWITCH	
	S002	QSEC001-E03	LEVER SWITCH	
	S003	ESS1200-002	LEVER SWITCH	
	S005	ESS1200-002	LEVER SWITCH	
	FW001	EWR33B-08SST	FLAT WIRE ASSY	
	FW002	EWR33B-08SST	FLAT WIRE ASSY	
	FW003	EWR33B-13SST	FLAT WIRE ASSY	
	PH001	GP1A53HR	I.C(PHOTO-INTERRUPTOR)	

Accessories List (XL-M218BK)

Block No. M 4 M M

	No.	Parts Number	Parts Name	Q'ty	Description	Area
	1	E30580-2409A	INSTRUCTION BOOK	1		J
		E30580-2410A	INSTRUCTION BOOK	1		C
	2	E26072-020	CD RACK	1		
	3	E309445-002	MAGAZINE LABEL	1		
	4	QMP1E00-183J5	POWER CORD	1		
	5	EWP302-023	SIGNAL CORD	1		
	6	EWP805-014	PLUG CORD ASSY	1		
	7	BT-20044G	SAFETY SHEET	1		J
	8	BT-52002-1	WARRANTY CARD	1		C
	9	BT-20071B	SERVICE NETWORK	1		C
	10	E309758-003	ENVELOPE	1		
	11	BT-51006-1	REGISTER CARD	1		J

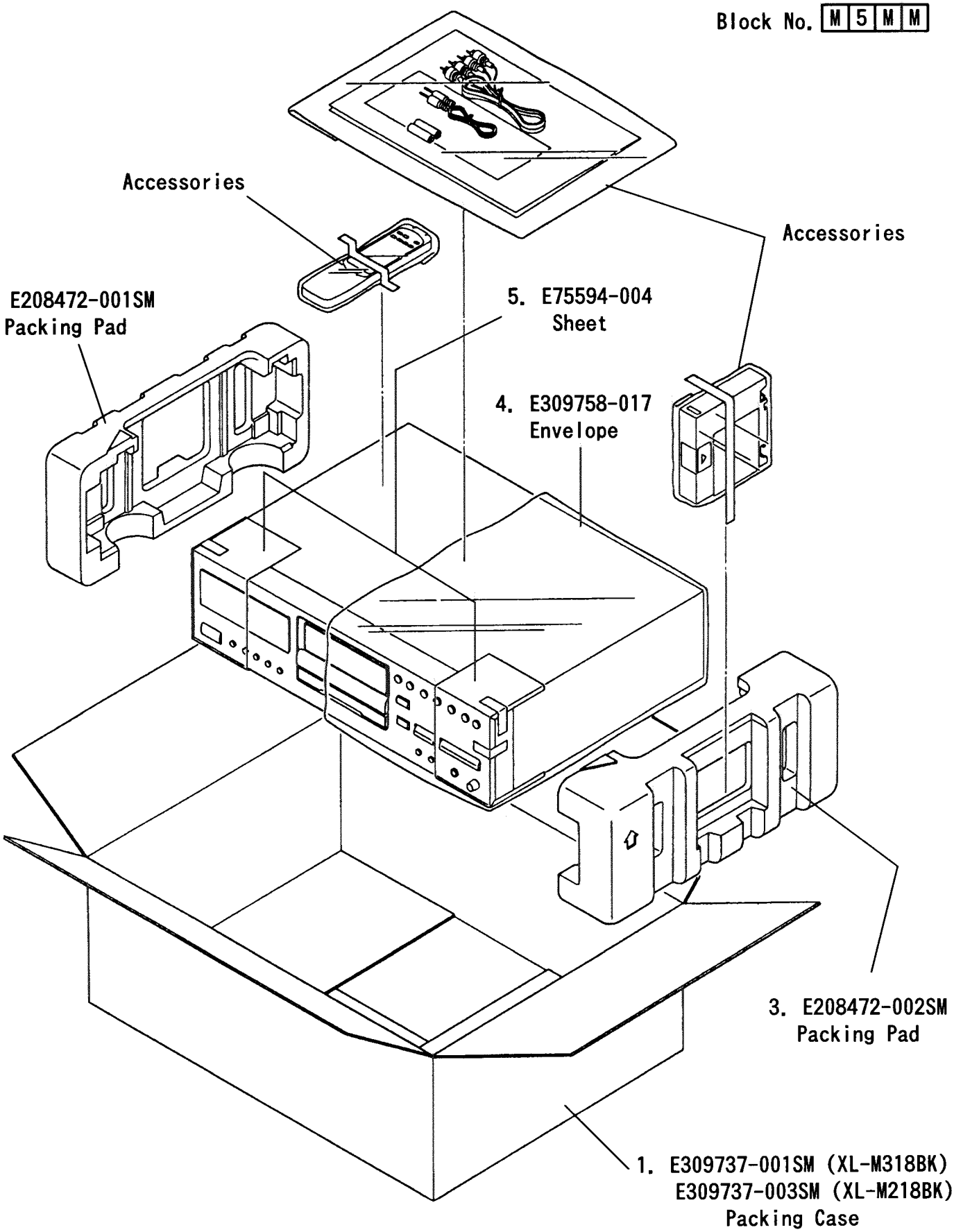
(XL-M318BK)

* This list describes only the difference between XL-M218BK and XL-M318BK.
  Please see the parts list for XL-M218BK for parts which are not described.

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	1	RM-SX318U	REMOTE CONTROL UNIT	1		
	2	R6PRPA-2PSA	BATTERY	1		

Packing Materials and Part Numbers

Block No. M 5 M M



JVC

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